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ABSTRACT

This report is a description of the phenomenon of methadone diversion as it exists now and places it in the context of prior research in this area. The intent here is to clarify issues around methadone diversion and to provide guidance to treatment administrators and program planners regarding efforts they can initiate to monitor this significant phenomenon. After extensive interviewing in the cities of New York, Philadelphia, St. Louis, Miami and San Juan during 1972-73, it was concluded that methadone was readily available on the streets of all five cities. The data indicated that the drug was generally diverted from maintenance programs by the patients themselves. Finally, the study suggests that the majority of the street use of methadone was therapeutically oriented, in that it was typically a technique to check withdrawal or detoxify. (Author/DOW)

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METHADONE DIVERSION:

Experiences and Issues

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SERVICES RESEARCH MONOGRAPH SERIES

METHADONE DIVERSION:

Experiences and Issues

BY

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U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
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This manual is a product of NIDA contract # ADM-45-74-125, which was developed in 1974 to study the nature and scope of methadone diversion in the United States.

The material contained herein does not necessarily reflect the opinions, official policy, or position of the National Institute on Drug Abuse of the Alcohol, Drug Abuse, and Mental Health Administration, Public Health Service, U.S. Department of Health, Education, and Welfare.

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FOREWORD

The extent and consequences of the diversion of methadone to the community from licit sources have long been a source of controversy and concern within the drug abuse treatment community. It is widely recognized that diversion of methadone at some level is an unfortunate consequence of attempting to provide methadone treatment to the 85,000 persons now receiving such treatment. The extent and the nature of that diversion, however, have been imperfectly understood, as has the role that use of illicit methadone plays in the drug abusing community.

The National Institute on Drug Abuse arranged to make study of some of the issues around methadone diversion through contracts with Dr. John Martin and his staff at Fordham University and with Dr. James Inciardi of the University of Delaware. Dr. Inciardi's work represents an effort to describe the phenomenon of methadone diversion as it exists now and to place it in the context of prior research in this area. This report is intended to clarify issues around methadone diversion and to provide guidance to treatment administrators and program planners regarding efforts they can initiate to monitor this significant phenomenon.

Laurence T. Carroll, Ph.D.
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SUMMARY

Methadone is a synthetic narcotic drug currently used as one of the primary mechanisms for the treatment and detoxification of heroin and other opiate addictions. Methadone was synthesized in Germany during World War II and, within a year after its release for study in the United States, research demonstrated the drug had an addiction liability and abuse potential. The literature suggests that addiction to methadone was noted as early as 1950 and that a methadone black market had emerged prior to 1960. Methadone maintenance, as a modality in the treatment of narcotic addiction, was developed during the mid-1960's by Drs. Vincent P. Dole and Marie E. Nyswander in New York City. By the close of that decade, methadone maintenance had become widespread as a part of addiction treatment.

The initial public statements on methadone diversion appeared in 1969, only one year after the Dole-Nyswander approach had begun to expand beyond New York City. By the early 1970's, enough reports of the illicit use of the drug had emerged to suggest that its diversion might be growing, thus warranting immediate investigation of several specific questions:

- How extensive and consistent was methadone diversion?
- How readily could methadone be diverted from maintenance programs?
- What purposes did methadone diversion serve?

In an effort to answer these questions, the National Institute on Drug Abuse contracted with the Institute for Social Research at Fordham University for a study of methadone diversion in five cities. After extensive interviewing in the cities of New York, Philadelphia, St. Louis, Miami, and San Juan during 1972-73, it was concluded that methadone was readily available on the streets of all five cities. The data indicated that the drug was generally diverted from maintenance programs by the patients themselves and that the most available form was methadone in the liquid vehicle. Finally, the study suggested that the majority of the street use of methadone was therapeutically oriented, in that it was typically a technique to check withdrawal or to detoxify.

After more rigid controls over take home medication were promulgated by the Food and Drug Administration in March 1973, a second study of methadone diversion was undertaken by the researchers at Fordham University. This second effort was undertaken during 1974-75 in the cities of New York, Philadelphia, Detroit, San Francisco, and Washington, D.C. A total of 599 active street addicts and 725 methadone maintenance patients, as well as numerous representatives of the criminal justice system, were interviewed at

length, and the data elicited from these sources are reported below in summary form.[1]

•• Availability. Illegal methadone was reportedly available in the five cities studied. Among the 599 active street addicts contacted, for example:

- 46 percent (n = 275) reported using illicit methadone during the week prior to interview.
- 70 percent (n = 418) reported using illicit methadone during the 3 month period prior to interview.

In addition, some 84 percent of the street sample and 63 percent of the patient sample stated that the drug could be readily obtained. Furthermore, in New York and Philadelphia where studies were undertaken in both 1972-73 and 1974-75, the data suggested that methadone was more available during the second study period than the first. For example:

- In New York, 38 percent of the street sample reported using illicit methadone during the week prior to interview in the 1972-73 study and this proportion increased to 50 percent during the 1974-75 study.
- In Philadelphia, 9 percent of the street sample reported using illicit methadone during the week prior to interview in the 1972-73 study and this proportion increased to 63 percent during the 1974-75 study.

•• Frequency of Use. Methadone did not appear to be a widespread major drug of abuse. In fact, among the street sample of 599 subjects, methadone ranked low when the question was asked, "What are you mainly on?" For example:

	N = 599
• heroin	84%
• marihuana/hashish	4%
• cocaine	4%
• methadone	4%
• all other/no data	4%

Furthermore, 95 percent of those reporting illicit methadone use during the 3 month period prior to interview (n = 418) indicated such use at less than daily. Of the remaining 5 percent (n = 20) who did use the drug daily, only half (n = 10) reported use at more often than once a day.

[1] The majority of the figures in this Summary relate to the street population interviewed, since their activities reflect the most current use of illicit methadone.

•• Form of Use. Methadone in the liquid vehicle was found to be the most commonly used form of illegal methadone. There were a total of 527 street addicts and 510 patients who reported having experience with street methadone. Some 97 percent of these street addicts and 89 percent of the patients indicated that they had used diverted methadone in the liquid vehicle. Furthermore, 85 percent of the total street sample and 64 percent of the total patient sample stated that the drug could be purchased in the liquid vehicle.

•• Price. The price structure of illegal methadone appeared to be generally uniform in all cities, at $6.00-$10.00 per dose in the liquid vehicle.

•• Source of Illicit Methadone. Patients in methadone maintenance programs were overwhelmingly reported as the primary source of the drug. Some 85 percent of the street sample and 81 percent of the patient sample suggested maintenance patients as the primary vehicles of diversion. Only a minimum of diversion was suggested to occur through program staff or physicians, yet some trafficking in the drug was reported to occur through special methadone dealers and drug pushers.[2]

•• Reasons for Use. The primary reason for illicit methadone use was reportedly therapeutic in nature. Among the 527 street addicts and 510 patients who had experience with street methadone, their responses in this behalf were as follows:

	Street	Patient
• to avoid withdrawal	58%	64%
• to limit habit	37%	30%
• to temporarily detoxify	37%	33%
• to permanently detoxify	17%	27%.

Regarding the euphoric qualities of the drug, 38 percent of the street addicts and 35 percent of the patients who had experience with street methadone reported having used the drug "to get high." It should be added here that the therapeutic role of illicit methadone in the self-treatment of addiction has been found throughout the literature. Among 145 illicit methadone users admitted to the National Institute of Mental Health Clinical Research Center at Lexington, Kentucky during 1971, 53 percent indicated self-treatment as the primary reason for use (Weppner, Stephens, and Conrad 1972). The study of 53 street methadone users by Chambers and Inciardi (1972) reported that 58 percent had used the drug for self-treatment. The Washington D.C. study

[2]As noted in Chapter V, there were a total of 1,741,256 dosage units of methadone that were lost or stolen. It is likely that this type of phenomenon might account for the distribution of illicit methadone through special dealers. It might also be noted here that in addition to the U.S. sources of the drug, methadone is also produced in dozens of forms in Germany, Czechoslovakia, the U.S.S.R., and numerous other countries (see Usdin and Efron 1972: 372-373). It is not known if any of these foreign-made products are reaching the U.S. black market.

of five samples during 1972-1975 found that 79 percent of the subjects had used illicit methadone for therapeutic purposes (Greene, Brown, and DuPont 1975).

•• Law Enforcement Inquiry. Law enforcement officials at both Federal and local levels place a low priority on methadone diversion, in part because it lies outside the illegal distribution system, and this may be reflected in the limited number of illegal methadone seizures.

•• Indices of Methadone Diversion. A number of possible indices of methadone diversion were examined--overdose death data, drug program admissions data, CODAP, DAWN, hospital emergency room data, drug seizure and arrest data, chemical trace data, drug theft data, and short-term field study data. It can be generally concluded that most of these data sources have limitations and could not stand alone as reliable indices of diversion, yet they can represent relative-partial indicators of the existence of methadone diversion in given communities. These data, however, cannot generally provide specific information on the availability of diverted methadone and the dynamics of the methadone black market. Chemical traces, elicited by "tagging" the methadone dispensed in maintenance programs and analyzing seized samples of the drug for this trace, are of limited utility in targeting the sources of diversion, since the incidence of illicit methadone seizures is relatively low. Short-term field studies and studies of program admissions would appear to be a promising mechanism for compiling on-going, economical, rapid and cross-sectionally representative data on methadone diversion.

Perhaps the most fruitful mechanism for monitoring methadone diversion would be the combined data from the suggested information network, CODAP, and DAWN:

- Community and treatment program data would provide information on availability, source, price structure, and relative prevalence in given communities.
- CODAP data would provide prevalence estimates of illicit methadone use among recent users seeking treatment across the nation.
- DAWN data, given some additions to the current reporting process, would supplement prevalence estimates in terms of that population exposed to acute, adverse, and fatal drug reactions.

Lastly, some comment seems warranted regarding the negative vs. positive aspects of methadone diversion. The negative aspects have included the potential for methadone addiction and the risk of overdose, while the positive aspects circumscribe the therapeutic role that illicit methadone plays in the active street community.

Addiction to black market methadone in contemporary drug-using communities is a phenomenon that has not been widely documented. The 1974-75 Fordham data, as noted earlier, indicated that as little as 3.7 percent

(n = 22) of the street population reported illicit methadone to be their major drug, only 3.3 percent (n = 20) of the population reportedly used methadone on a daily basis, and only 1.7 percent (n = 10) reported the use of methadone more than once a day. Furthermore, since the majority of the street population reported the use of illicit methadone for therapeutic purposes, it might be assumed that a portion of these daily users were regularly involved with the drug to avoid withdrawal, to limit their habit, to detoxify, or to keep themselves stabilized until they got into a treatment program. Some 9.4 percent (n = 49) did claim that they had been addicted to methadone, but there is no indication in the data as to whether all of these individuals were addicted at the same time, or when that point in time was.[3]

The risk of acute or fatal reactions to illicit methadone is another issue that requires further study. Our data on this phenomenon are drawn from the DAWN system which, as noted earlier, has several limitations. In spite of these, however, DAWN data nevertheless reflect relative indicators of methadone risk potentials. Initially, during the period July 1973 through June 1975, there were 2,083 methadone-related deaths reported from the 24 SMSA's reporting to DAWN. However, 25 percent of these deaths also involved heroin and almost 50 percent also involved at least one other drug. More importantly, since the fourth quarter of 1973, when methadone-related deaths hit a peak of 304, the number of deaths has decreased by 43 percent, to 212 in the second quarter of 1975; during the same period of time, heroin-related deaths increased by 23 percent, from 395 to 512 (National Institute on Drug Abuse 1976). Secondly, in terms of the number of methadone-related emergency room episodes reported to DAWN from July 1973 through June 1975, there was a decrease of 15 percent (from 2,384 to 2,068), while those of heroin increased by 29 percent (from 4,636 to 6,546). While the data indicate the relative prevalence of acute and fatal reactions to methadone, they also indicate that these are declining.

The positive aspects of illicit methadone, as noted earlier, circumscribe the role that the drug plays in the self-treatment of addiction by the majority of its users. Furthermore, as others have noted (for example, Agar 1974), with heroin, control over large quantities has traditionally rested in the hands of a few major suppliers, thus contributing to its unstable yet high price; with methadone, each of its many sources controls a small amount, apparently making it less costly. Additionally, the availability of an inexperience longer-lasting narcotic tends to reduce some addicts' hustling activity. Finally, the predominantly oral route of methadone administration reduces the medical problems related to the intraveneous injection of heroin.

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Chapter I of this report reviews the background of issues, including the introduction of methadone into the society and the subsequent recognition of

[3]Agar and Stephens (1975) reported in a 1974 study of New York addicts that the emergent role of methadone was one of primary abuse. The authors cautioned the interpretation of their data, however, since much of it was based on estimates from a small sample of 41 street addicts.

a potential problem in the illicit diversion of the drug to unsupervised street use. Chapter II offers a brief historical overview of the factors which led to the development of methadone and the institutionalization in this country of methadone treatment. Chapter III examines the early studies on methadone diversion. Chapter IV provides an analysis of the Fordham data, highlighting its findings and conclusions. This chapter also examines current national data systems regarding methadone diversion. Finally, drawing on these findings, other data from the drug literature, and additional information specifically collected for this publication, chapter V examines a variety of measures that might be utilized for assessing the nature and prevalence of methadone diversion in a community.

METHADONE DIVERSION: EXPERIENCES AND ISSUES

I

INTRODUCTION

Methadone is a synthetic narcotic drug with analgesic, euphorigenic, and dependence producing qualities that represents one of the primary mechanisms for the treatment of heroin addiction. The pharmacological basis of its use in treatment rests on the notion that methadone intervention can restrain the phenomenally untoward effects of morphine-like drugs by substitution. The pharmacologic considerations that influenced the development and expansion of methadone maintenance therapy included the following:

- Methadone reflects many of the characteristics of morphine, including cross-tolerance; a person tolerant to one morphine-like drug is also tolerant to equipotent doses of another.

- Methadone, when administered to a heroin addict, will either prevent the withdrawal symptoms caused by abstinence from heroin or eliminate them if they have already developed.

- The action of oral methadone lasts up to twenty-four hours; a methadone program can administer the drug once a day, rather than three to four times as would be necessary in the case of heroin or morphine.

- High doses of methadone will prevent withdrawal and block the euphoric effect from an injection of heroin.

- High and low doses of methadone will prevent withdrawal, as well as "drug hunger," that is, the feeling of physical abnormality felt by addicts who have become abstinent.

- Methadone can be administered orally and is medically safe, having minimal significant side effects.

When methadone maintenance was initiated in the mid-1960's as an approach to the treatment of addiction, many hoped that a "cure" for the chronic relapsing disease of narcotic dependence had finally been achieved. Thus, if addicts were properly maintained on methadone, their drug-craving would cease, their illicit drug taking and drug-seeking activities would become unnecessary, and the rehabilitative services offered by treatment programs could respond to those psychosocial problems which had initially led to the use of drugs.

Shortly after programs began to proliferate across the nation during the late 1960's, the difficulties associated with methadone maintenance treatment

began to surface. Program retention rates were not as high as had been anticipated, nor were the number of identifiable "cures." Furthermore, patients were found to be using both opiate and non-opiate drugs while in maintenance programs. Finally, of great concern too was the phenomenon of methadone diversion--the channeling of licit methadone supplies to an illicit drug marketplace. Diversion as such was viewed with concern by many clinicians and researchers in the drug field, because an uncontrolled supply of methadone at the street level created the potential for undermining the therapeutic goals of methadone maintenance programming, for establishing populations of primary methadone addicts and, most seriously, for producing a setting for methadone overdose.

With the onset of the 1970's, both empirical and clinical observations suggested that illegal methadone was available in most areas of high density heroin use. These data also suggested that the sources of illegal methadone primarily involved methadone patients who were diverting their own legal supplies of the drug. Interestingly, however, while only limited data were available regarding methadone addiction and methadone overdose, the studies did indicate that illegal methadone occupied a therapeutically functional position within the drug using community. While some users viewed methadone as an inexpensive mechanism for narcotic drug euphoria, the majority of those involved with the diverted drug found it beneficial for avoiding heroin withdrawal or for self-treatment of heroin addiction.

In an effort to generate a better understanding of the nature, extent, and potential problems and benefits associated with methadone diversion, the National Institute on Drug Abuse contracted with Fordham University's Institute for Social Research to undertake an assessment of these phenomena. Fordham conducted two studies in eight cities across the nation and generated the largest data base currently available on the subject. The purpose of this monograph is to analyze the Fordham data, other studies and information in the field, with the hope of gaining better insight into the dynamics of methadone diversion.

II

THE DEVELOPMENT OF METHADONE AND METHADONE TREATMENT

Methadone emerged from the search for a synthetic morphine substitute that was launched by German chemists when World War II blocked Germany from its usual sources of opium. That situation had created a demand for an ersatz morphine that could be manufactured cheaply without the need for opium as a raw material (Kleiderer, et al. 1943).

Knowledge of the morphine-like compounds prepared by German chemists during the war came shortly after the Allied victory in Europe. Among these compounds was 6-dimethylamino-4, 4-diphenyl-3-heptanone, designated as "Amidon" under the German serial number 10820 (Scott and Chen 1946; Eddy 1947). Amidon, or methadone (originally spelled methadon), duplicated the effects of morphine in most respects both qualitatively and quantitatively, but early studies indicated that there were some important differences in its action in human subjects.

Among the differences were the time course of the abstinence syndrome that followed abrupt withdrawal in an addicted individual and the effect of methadone on the course of the abstinence phenomena after substitution in those addicted to other narcotics. The methadone abstinence symptoms were not apparent until some forty-eight hours subsequent to the last dose of the drug. These symptoms never reached more than low intensity and they sometimes endured for two weeks. Similarly, it appeared that if methadone were substituted for another narcotic when physical dependence had developed, the subsequent withdrawal sequence was slow in onset, attenuated in intensity, and considerably prolonged (Eddy 1965).

The findings of these first observations of methadone reflected a series of characteristics that would ultimately lead to its use in the treatment of narcotic addiction. Under the trade names of Amidone, Bulalgin, Dolophine, Methadon, Miadone, Physeptone, and Polamidon, the pharmacological actions of methadone were qualitatively identical to those of morphine, with the outstanding features of effective analgesic activity, efficacy by the oral route, extended duration in suppressing withdrawal symptoms in physically dependent individuals, and a tendency to show persistent effects with repeated administration.

Methadone Treatment

Methadone was released in the United States in 1947 and it quickly came into use at the United States Public Health Service Hospital at Lexington, Kentucky, and at other hospitals as the preferred drug for administration in small quantities to relieve the discomforts of narcotic withdrawal. Although

the symptoms of abstinence from morphine could be modified by a variety of non-opiate drugs, the only real relief was provided by morphine or by some other drug with an equivalent action.

The traditional treatment technique with methadone, as it evolved at Lexington, was to withdraw opiates gradually, allowing physical dependence to drop an increment at a time rather than suddenly, thus avoiding severe abstinence phenomena. This was accomplished by the substitution in equivalent strength of methadone for the opiate drug of addiction, followed by the regulated reduction of the methadone dosage (Isbell 1955). Methadone became the drug of choice in this respect due to its long-acting qualities and its effectiveness in oral doses. Given these advantages, combined with the phenomenon that numerous narcotic addicts originally viewed the drug as a "medicine," maintenance therapy with methadone became a possibility.

The first methadone maintenance program emerged during the early 1960's. In November 1963, Dr. Vincent P. Dole, in collaboration with Dr. Marie E. Nyswander, began a study of the metabolism of heroin addicts (Miller 1974: 173). Their plan began with the maintenance of two hard core criminal addicts on morphine, in a manner similar to the British approach to the treatment of morphine addiction. Soon after the experiment began, it was evident that the results were less than impressive in that the patients were practically immobile, spending their time idly waiting for their next injection of the narcotic. In terminating this initial phase of the study, standard detoxification procedures were intended using decreasing doses of methadone. Since the two patients had been maintained on high doses of morphine, they were administered similarly high doses of methadone.

Drs. Dole and Nyswander quickly noticed that under the influence of high dose methadone, there were dramatic changes in patient behavior and appearance. One patient took a serious interest in painting, while the other considered completing his education (Miller 1974:173). Dole and Nyswander also observed that when their patients were maintained on the high doses of methadone, the pattern of improvement continued, narcotic hunger was abated, and supplementary doses of heroin failed to produce euphoria. They labeled these latter phenomena the "methadone blockade" (Dole, et al. 1966).

From this serendipitous experiment the Dole-Nyswander theory of methadone maintenance emerged. It was conceived as a viable modality for the treatment of narcotic addiction, founded on the notion that by providing an adequate solution for the direct problems of drug dependence, the regimen would free addicts from their fears of withdrawal and the pressures of drug-seeking activities. This would then enable the addict patients to work out their other problems, such as securing employment, restoring family relationships and solving personal problems, by making use of counseling assistance. Only after the emotional and lifestyle stabilization had been achieved would efforts be made to reduce a patient's drug habit.

Dole and Nyswander treated a small number of additional patients during the months which followed, and their apparent success led to a $1.4 million dollar commitment from New York City in June 1965 for a large scale test of their "apparent treatment breakthrough" (Trussel and Gollance 1970).

The first formal program launched by Drs. Dole and Nyswander involved a small group of heroin addicts being administered methadone on a controlled basis, but in large and steady doses. The drug was given orally and on a daily regimen. In an early report of twenty-two patients orally stabilized, marked improvement was indicated in terms of employment, education, and family reconciliation (Dole and Nyswander 1965). Subsequent reports proclaimed the anti-euphoriant effects of methadone (Dole, et al. 1966), as well as the utility of treating heroin addiction as a metabolic disease by preventing the narcotic hunger which resulted from the drug's longterm physiological effects (Dole and Nyswander 1967).

Methadone maintenance, with only small programs in operation in New York City, Philadelphia and Illinois, received strong support following a favorable evaluation of the Dole-Nyswander program in 1968. This evaluation, an external and objective effort undertaken by the Columbia University School of Public Health reported that:

- Of the 871 patients admitted to the Dole-Nyswander program as of March 31, 1968, some 68 percent had remained in treatment, reflecting a retention rate higher than other addiction treatment modalities.

- Among 544 males in treatment for a minimum of 3 months, only 28 percent had been employed prior to admission, yet 45 percent were employed 5 months after admission and 85 percent were employed 24 months after admission.

- None of the patients still in treatment became readdicted to heroin, and rearrest on criminal charges decreased subsequent to admission (Methadone Maintenance Evaluation Committee 1968).

Although there has been some criticism of the evaluation techniques utilized in assessing the effectiveness of the Dole-Nyswander program, the favorable reports stimulated the expansion of methadone maintenance. By October 1970, there were more than 12,000 methadone patients in New York City alone. On a national level, there were 56,000 patients on methadone in the Spring of 1972 and almost 74,000 by March 1976. At present, methadone maintenance is recognized throughout the country as a primary treatment for opiate addiction.

III

THE EMERGENCE OF METHADONE DIVERSION

An overview of the historical repository of the drug addiction literature suggests that methadone diversion is perhaps more than a quarter of a century old, predating the emergency of methadone maintenance therapy. Furthermore, the discussions of methadone diversion have typically focused on the sources of diversion, as well as its impact in the form of methadone addiction, methadone supplementation by patients in maintenance programs, and the threat of methadone overdose. Within that context, this chapter will examine literature related to:

- The diversion of legal methadone to an illicit drug market place
- The use of methadone as a primary, i.e., major, drug of addiction
- Methadone supplementation by patients in a maintenance modality
- The extent of methadone overdose.

The General Diversion of Legal Methadone to an Illicit Drug Marketplace

Methadone is a patient analgesic and in years prior to its use in the treatment of heroin addiction by duly authorized programs, the drug was available through physicians. Sapira, Ball, and Cottrell (1968), in their studies of methadone addiction, documented that a number of the subjects in their sample had been obtaining large supplies of methadone as early as 1950 from physicians, pharmacists, or the illicit drug marketplace.[1] With the onset of methadone maintenance programs, the drug received additional potential for diversion.

The initial public statements on methadone diversion appeared in 1969, only one year after the Dole-Nyswander approach had begun to expand beyond New York City. One of the earliest reports came from Dr. Jacob Hoogerbeets of the University of Miami, who indicated that, in addition to some physicians

[1]The Sapira, Ball and Cottrell (1968) data are discussed in greater detail later in this chapter, under the heading of Methadone Addiction.

prescribing methadone in amounts up to 600 mg., the Catholic Welfare Bureau in Miami had a dispensing clinic that was providing methadone to some 600 patients (Hoogerbeets 1969).

With the onset of the 1970's, reports began to appear suggesting that methadone diversion was occurring in many parts of the nation. In New Orleans, methadone had been reported as being diverted from programs as early as 1968, and the availability of street methadone reportedly had an effect on the market price of heroin (Bloom, et al. 1972). In Philadelphia, the medical profession had recognized methadone to be a drug of abuse by 1971, with patients reporting the drug to be available for $25 in a 20 ml. vial containing 200 mg. of methadone (Fraser 1971; Wolfe, et al. 1972). Other reports indicated that methadone could be obtained illegally in San Francisco (Newmeyer, et al. 1972), in Detroit (Aronow, et al. 1972; Krome and Jayne 1971), and in Washington, D.C. (Dobbs and Freeman, 1972; Dobbs 1971; Greene, et al. 1975).

Perhaps the earliest significant data to focus directly on the problem of methadone diversion were generated at the National Institute of Mental Health Clinical Research Center at Lexington, Kentucky (Weppner, Stephens, and Conrad 1972). During the period from April 30, 1971 through August 3, 1971, a total of 336 patients were admitted for treatment and, of these, 213 (63 percent) reportedly had had some previous experience with methadone: 145 (43 percent) had used it illegally and 111, or one-third of the patients, had been in a methadone program at some time. In addition, some 65 persons (19 percent) reported using methadone illegally while participating in a formal program.

Of the 145 patients who had admitted using illegal methadone, patients reported obtaining the drug from the following sources:

	N=145
• regular heroin dealers	44%
• methadone maintenance patients	37%
• all other	19%.

The primary reasons for using illegal methadone were reported as:

	N=145
• to kick a heroin habit	34%
• other narcotics unavailable	12%
• to reduce a heroin habit	10%
• to avoid withdrawal	9%
• ease of procurement	9%
• low price	9%
• quality of the "high"	8%
• duration of euphoria	3%
• all other	8%.

Interestingly, these data suggested a therapeutic role played by street methadone. Of the 145 patients, some 44 percent reported the primary use of the diverted drug to be an effort at containment of their heroin addiction, with an additional 9 percent reporting its use for avoiding the abstinence syndrome.

A second study was done a year later on admissions to the Lexington facility during the period May 23, 1972 through October 18, 1972 (Stephens and Weppner 1973). A total of 469 persons had been admitted during this second study period and, of these, 75 percent (n=350) reported some experience with methadone and 52 percent (n=242) reported using it illegally. Some 30 percent of these subjects stated they had obtained the methadone from drug dealers, 35 percent from methadone maintenance patients, 13 percent from physicians or pharmacies, and 22 percent from other sources.

A more focused view of 76 Lexington patients provided additional data on the sources of illicit methadone (Weppner and Stephens 1973). The data indicated that, for this population, the primary source of methadone had been diversion from legitimate programs. Most commonly, the methadone had been diverted from programs which dispensed multiple dosages (twice weekly, weekend, or weekly dosages). Other sources of illegal methadone had included drug dealers who had either obtained the narcotic from physicians, forged prescriptions, or burglarized pharmacies. Finally, a small portion of the illegal methadone had been diverted by program counselors who had either stolen the drugs from program supplies or "shorted" patients' dosages and sold the balance.

Significant data were also generated from an assessment of the availability of illicit methadone within an active heroin subculture. During August 1971, a study population of heroin addicts was selected at random from the streets of the Bedford-Stuyvesant section of Brooklyn, a known high drug use area of New York City (Chambers and Inciardi 1972). The only sampling criterion imposed in the study was that each addict-respondent must have been an active narcotic user in the street community (not in treatment or jail) for a minimum of six months prior to the time of interview. Of the first 100 addicts selected, 95 met this single criterion. Interviews with this population indicated:

- Of the 95 active heroin addicts, 92 percent (n=87) reported having had the opportunity to purchase illicit methadone during the past six months.

- Of the 95 active heroin addicts, 56 percent (n=53) reported having purchased illicit methadone within the past six months and, of these, 94 percent (n=50) reportedly secured the methadone for their personal use.

- Some 79 percent of the 53 buyers reported that methadone was <u>always</u> available in their area.

- The source of most of the illicit methadone was from ambulatory patients enrolled in programs dispensing "take-home medication," in that 74 percent of the 53 buyers reportedly purchased the drugs from active methadone patients.

These data also offered further testimony on the therapeutic role played by illegal methadone within the street-addict community. Some 41 percent of those who had used illegal methadone indicated that they had wanted to "insure" against withdrawal stress, and 17 percent indicated "cleaning up" as the primary reason for use. By contrast, 40 percent used their diverted supplies to "boost" other drugs, while only 2 percent had purchased it for resale.

The same study also provided an indirect measure of illicit methadone availability in Miami, Florida during 1971. As indicated in table 1, of 257 narcotic addicts requesting treatment in a methadone program, urine data reflected that 38 percent (n=98) had already been using methadone at the time of application, and 19 percent of these had methadone-positive/heroin-negative urines.

An analysis of trends in methadone diversion in Washington, D.C. by Greene, Brown and DuPont (1975), provided even further insight into the nature of the phenomenon. Their data were collected through the activities of the Narcotics Treatment Administration (NTA), the District of Columbia's multimodality addiction treatment program, and included information on diversion, methadone addiction, and methadone overdose.[2] More specifically, five methadone diversion surveys were performed between January 1972 and December 1973 on addicts entering treatment. Sample sizes ranged from 100 to 150 consecutive individuals encountered at NTA's Central Medical Intake Unit.

As indicated below, the data suggested that a significant proportion of the sample patients entering treatment had used illicit methadone at some time during their drug-using careers. Some 46 percent of

	1st Qtr. 1972	2nd Qtr. 1972	3rd Qtr. 1972	4th Qtr. 1972	4th Qtr. 1973
• ever used illegal methadone	46%	41%	55%	57%	34%
• use during month prior to interview	28%	29%	34%	39%	20%

the first sample (1st Qtr. 1972) admitted to the use of illicit methadone. This proportion increased during 1972, peaking to 57 percent during the last quarter, followed by a significant decrease to 34 percent by the fourth quarter of the following year. A similar trend was apparent among the samples with respect to the proportions of patients who had admittedly used illicit methadone during the month prior to being interviewed. It might also be noted that among those who ever used and those who were recent users of illicit methadone, the proportions of those claiming use in the last quarter of 1973 not only decreased over the previous year, but in addition those proportions fell below

[2]The addiction and overdose data are discussed in the latter part of this chapter.

the level apparent in the first quarter of 1972. This diminution in use of illicit methadone was apparently a consequence of administrative actions taken by the drug treatment program and described by the authors.

The Greene, Brown, DuPont study also documented the therapeutic role of illicit methadone, in that 79 percent of the recent users (based on a mean of all five surveys) reported taking the drug for self-treatment.

Methadone Addiction

In 1947, under the auspices of the Drug Addiction Committee of the National Research Council, studies of tolerance, physical dependence and habituation to methadone in animals and man were conducted at the United States Public Health Service Hospital in Lexington, Kentucky. The findings clearly indicated that methadone possessed a definite addiction liability and abuse potential:

> The results leave absolutely no doubt that methadone is a dangerous addicting drug. Tolerance has been shown to develop to many actions of the drug in both animals and in man. Physical dependence to methadone has been shown to occur in dogs, and a real, however mild, physical dependence occurred in man after prolonged administration of larger doses. The drug in sufficient dosage produces a type of euphoria which is even more pleasant to some morphine addicts than is the euphoria produced by morphine. The similarity of the behavior of the subjects addicted to methadone to the behavior of men to morphine; the similarity of the psychological changes and the requests for increases in dosage during addiction--all point to the development of strong habituation to the drug (Isbell and Vogel 1949).

Although only a few references to methadone addiction were made prior to 1960 (for example, Nyswander 1956:22), studies undertaken after the emergence of methadone maintenance as a treatment modality indicated that such addiction had existed as early as 1950 and that a methadone black market had emerged prior to 1960 (Sapira, Ball, and Cottrell 1968). Some four years after the initiation of the Dole-Nyswander program, Sapira, Ball, and Cottrell reported on the prevalence of methadone as the major[3] drug of addiction among addicts treated at the Lexington, Kentucky and Fort Worth, Texas Public Health Service Hospitals. During fiscal years 1962-1966, discharge records indicated that some 214 patients had a first drug diagnosis of methadone addiction. While the authors of this study did not indicate the total number of discharges during the 5-year period, other data would suggest that the proportion of methadone addicts in the total treatment population was comparatively small. During the hospital's fiscal year 1962, for example, the authors report that of 3,301 discharges, 72 or 2.2 percent had been methadone addicts.

[3]Major, in this context, refers to the most frequently used narcotic.

As suggested by table 2, the Sapira, Ball, Cottrell study offers perhaps the earliest data on illicit methadone. These data are descriptive of some 25 male patients discharged from the Lexington, Kentucky hospital during the 32 month period ending August 1967. Interestingly, among these patients, methadone had been used for a mean of 5.9 years, use had started as early as 1950, and the range in methadone use was from 1 to 15 years, although only a relatively small portion of these users had obtained their drugs illegally.

Studies subsequent to the Lexington/Ft. Worth effort have indicated that the use of methadone as a primary drug of addiction persisted through the 1960's and into the 1970's, but that such addiction never reached significant levels (see, for example, Arroyave, et al. 1973; Agar and Stephens 1975; Greene, Brown, and DuPont 1975).

Methadone Supplementation

Methadone supplementation involves the self-administration of additional doses of methadone by patients in a maintenance modality. The patients increase their methadone intake beyond the prescribed levels by using medication illegally obtained.

The most detailed study of methadone supplementation was undertaken with patients serviced in the Narcotic Addict Rehabilitation Program Maintenance Clinic at the Philadelphia General Hospital (Chambers and Bergen 1973). During the period November-December 1969, there were 173 registered and active methadone maintenance patients in this clinic and, of these, some 10 percent (n=17) were admitted supplementers. Interestingly, these 17 subjects were not recent initiates to the program, nor were they "therapeutically ignored" patients. Furthermore, they were high-dose methadone patients (80 to 200 mg. per day), supplementing with additional high doses of methadone (10 to 400 mg. with a median level of 100 mg.). The methadone had been taken in both oral and intravenous forms, and these patients were also abusing additional drugs (opiates, sedatives, amphetamines, and cocaine) while supplementing methadone. These data suggested that even extremely high doses of methadone did not suppress "drug-hunger" or "drug-seeking" in some persons.

Other studies have suggested that while some patients stabilized on as much as 180 mg. of methadone may experience euphoria from low doses of intravenous heroin or additional doses of methadone, this phenomenon may be a psychological rather than a physiological response in many cases (Goldstein 1971; 1973).

In a study conducted at the D.C. Narcotics Treatment Administration in 1970, it was found that only 1.3 percent of all urines collected from methadone stabilized clients over a period of 24 weeks showed evidence of any opiates other than heroin. In addition, in the same study the use of illicit opiates generally was found to be associated with both shorter time in treatment and lower dose of methadone (Brown, DuPont and Nolfi 1972).

Methadone Overdose

A substantial part of the concern about diversion centers on the potential for methadone overdose among unsupervised users.

One of the earliest reports on this issue examined coroners' records from the four Inner London Courts and one additional court for the period January 1965 through March 1969 (Gardner 1970). A total of 12 cases were found that could be considered methadone overdose deaths, yet only a limited number of these cases could be clearly linked to methadone diversion. Two-thirds of the deaths involved persons having large supplies of the drug, obtained from treatment centers or physicians; the source of supply was unknown for 3 cases; and only one subject had reportedly obtained the drug from another addict.

The first major study of deaths involving methadone users reflected on addict deaths in New York City during 1971 (Nadler, et al. 1973). For the purposes of the current discussion, the findings of this study were inconclusive. It was difficult for the investigators to determine whether methadone had been the precise cause of death. Interestingly, however, of 1,215 addict deaths reviewed, some 25 involved inactive methadone patients (former program patients) and only 3 of these (less than one-half of 1 percent of all addict deaths) were found to have demonstrable methadone in their tissues at autopsy.

A clearer view of the overdose issue appeared in the Washington, D.C. study by Greene, Brown, and DuPont (1975) noted earlier. There had been no known opiate-overdose deaths related to methadone prior to 1970. During 1970, however, the establishment of a large-scale high dose methadone program having relatively loose controls over take-home medication combined with the advent of private methadone sales by physicians. This, and activities by still another already established methadone program, allowed some quantities of the drug to be available to users and 17 overdose deaths occurred during that year. The number of deaths increased to 21 in 1971 and to 51 in 1972. During this latter year, methadone diversion survey data indicated that 28 percent of the patients entering treatment during the first quarter had used illicit methadone during the month prior to interview, and by the last quarter of the year this proportion had increased to 39 percent.

In an effort to manage this level of illicit methadone use, which had been aggravated by a shortage of heroin on the streets of Washington, D.C. during late 1971, a variety of control mechanisms were introduced:

- March 1972 -- suspension of methadone prescribing by private physicians and pharmacists.
- May 1972 -- introduction of noninjectable liquid methadone.
- September 1972 -- improved methadone program security.

- February 1973 -- introduction of more rigid take-home criteria and procedures.

- March 1973 -- last of the methadone-for-profit physicians closed down.

With the onset of these controls, the number of methadone overdose deaths fell to 11 during the first half of 1973, to 3 during the last half of 1973, and to 2 during the first half of 1974. This latter figure represented a decrease of some 93 percent over the corresponding period two years previous. Similarly, the proportion of new methadone patients admittedly using the drug illicitly during the 30-day period prior to interview decreased by 49 percent between the last quarter of 1972 and that of 1973.

While these data would suggest that the level of overdose deaths was linked to methadone diversion, other data indicate that the issue was somewhat more complex.

On the one hand, while both overdose deaths and reported diversion simultaneously decreased, the level of deaths decreased at an even more rapid rate. As such, while the new controls apparently did not eliminate diversion, they seemingly reduced the large quantities of methadone that had been available to individual users. On the other hand, during the two-year study period, methadone users became more aware of the dangers of the indiscriminate use of the drug. During the first quarter of 1972, the peak period for overdose deaths, some 53 percent of the patients interviewed felt that heroin had a higher risk of overdose than methadone; one year later, recognition of the risks associated with methadone was apparent in that only 14 percent saw heroin as the more dangerous drug.[4]

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While the early studies of methadone diversion, addiction, supplementation, and overdose offered no ultimate conclusions regarding the phenomena, they did isolate a number of questions and issues which required immediate attention:

- How extensive and consistent was methadone diversion?

- How readily could methadone be diverted from maintenance programs?

- What explicit purposes did a methadone black market serve?

- What was the relative prevalence of methadone addiction?

- How common was methadone overdose among illicit users of the drug?

[4]A discussion of the DAWN data relative to overdose appears in chapter V.

IV

CURRENT PERSPECTIVES ON THE NATURE AND STRUCTURE OF METHADONE DIVERSION

In view of the concern that methadone had emerged as an illegal commodity in many American cities, the National Institute on Drug Abuse contracted with Fordham University's Institute for Social Research to design and execute a systematic study of methadone diversion in five selected cities. The project was undertaken during 1972-73 in New York, Philadelphia, St. Louis, Miami, and San Juan. Three separate lines of inquiry were pursued: street addicts were questioned; patients in methadone maintenance programs were interviewed; and police seizures of methadone were monitored. This strategy was followed in an attempt to determine, in selected cities, if illegal methadone was available; to determine the source and manner of such diversion if it was indeed occurring; and to gain some understanding of the "street uses" of illegal methadone and the nature and extent of its distribution. Data on these issues were deemed necessary for designing policies that would better control methadone and reduce or eliminate its possible diversion from maintenance programs (see, Martin, et al. 1973).

In summary, a total of 381 active street users and 266 patients in treatment were interviewed. The general conclusion from the interviews was that illegal methadone was available on the streets of all five cities monitored. While the form of street methadone varied somewhat from city to city, there was considerable traffic in methadone in a liquid vehicle in all areas. New York and San Juan reflected noticeable amounts of methadone diskets on the streets, while St. Louis, Miami, and Philadelphia indicated a high availability of Dolophine tablets. Philadelphia also had significant traffic in injectable methadone. The mode of administration of street methadone was almost exclusively by the oral route. Methadone by injection was minimal, with the few identified cases confined generally to Philadelphia, likely as a result of the minor traffic in injectable methadone that has seemingly endured in that city.[1]

Interview data suggested that the majority of the illegal methadone on the streets of the five cities had been diverted from methadone maintenance

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[1]It might be noted here that some reports have commented on the intravenous administration of methadone in the liquid vehicle in the city of Philadelphia. Clinicians at the Temple University School of Medicine, for example, became aware of this phenomenon in 1971 and have studied the medical complications associated with it (see Wolfe, et al. 1972).

programs. The drug was typically being diverted by the patients themselves, who reportedly sold, traded, or gave away part of their medication. There was little indication of diversion by methadone program staff, although this problem has been reported elsewhere in the literature (Dobbs and Freeman 1972). Finally, the data suggested that the majority of the street use of methadone was therapeutically oriented, in that it was used to check withdrawal or to detoxify.

METHADONE DIVERSION II: A STUDY IN FIVE CITIES

The apparent increase in methadone diversion during the 1972-73 period of study may have been related in some degree to the lack of formal controls over take-home medication in many programs. Regulations varied from place to place and in some instances take-home medication was available to patients regardless of their program progress. Effective March 1973, new FDA regulations on take-home medication required the patient to be employed or enrolled in classes, to have drug-free urines for three months, to be regularly attending group or individual therapy sessions, to have a good attitude toward program involvement, and to have a verifiable need for the take-home privilege (Federal Register, 1972).

Given the demonstrated availability of illicit methadone and the more rigid controls over the mechanisms of possible diversion, a second study was undertaken during 1974-75 to assess the current nature of diversion practices and to determine if the new FDA controls had had any impact on diversion. This second study was also commissioned to Fordham University's Institute for Social Research (see, Martin, et al. 1975). The following analysis has been drawn from the findings of the Fordham study.

Project Design Strategy

Among the initial methodological concerns was the appropriate selection of target cities. Considerations involved the general nature and structure of a city's drug culture, the local research capabilities, the mechanisms for obtaining access to the drug-using community, and the level of expected cooperation from program, public, and law enforcement officials. It was also decided that, while assessments of methadone diversion in some cities included in the earlier study would be beneficial, it would also be important to vary sites due to the possibility of alternative methadone distribution policies. As a result, New York and Philadelphia were chosen in order to generate data for comparison with the 1972-73 assessments in those cities. Detroit, San Francisco, and Washington, D.C. were selected as new sites.

To accomplish the purposes of the study, segments of three populations involved with methadone and its possible diversion were interviewed in each of the five cities:

- Street addicts in selected high drug traffic areas
- Active patients in drug treatment programs
- Federal and local law enforcement officials.

Both addict and patient interviews were anonymous and followed the anthropological model of an informal conversational structure. Although the nature of the population interviewed and the sensitive character of the subject under study precluded any selection of random samples, information from local drug professionals enabled the research team to concentrate on major drug use localities, thus eliminating the possibility of interviewing within small, closed networks of users.

Data elicited from the street addict and program populations included:

- User Profile
  - age
  - sex
  - race-ethnicity.
- Drug Use Profile
  - type of drugs used
  - primary drugs of abuse
  - drugs recently used.
- Illicit Methadone Profile
  - availability
  - source
  - price
  - purpose of use
  - form of methadone.

Elements elicited from law enforcement officials included:

- Attitudes and knowledge concerning illicit methadone and other illegal drugs
- Impact of illicit methadone on narcotic law enforcement policy
- Level of methadone arrest activity
- Extent of illicit methadone seizures.

Mortality data related to methadone use were obtained from the medical examiners or coroners in each of the five cities. Finally, in order to determine the degree to which illicit methadone was being diverted from specific

methadone programs, a "trace" procedure was instituted in two of the designated cities.[2]

Target Areas

New York. Three interview areas were selected in New York City: Bedford-Stuyvesant, South Bronx, and Harlem. All three were representative of the ghetto pattern typically observed in American cities and reflected high concentrations of black and Hispanic populations. Some 131 active street addicts and 224 patients in methadone programs were interviewed in New York.

Philadelphia. Four interview areas were utilized, all located around the center of the city and resembling classic ghetto patterns. A total of 98 active addicts in these inner city high heroin use areas and 101 patients in methadone programs were interviewed.

Detroit. There were a total of six interview areas, all high density drug use areas. The interviews included 73 active street addicts and 88 patients in methadone programs.

San Francisco. Four interview areas were selected, known locally as the Western Addition/Fillmore section, the Mission District, the Tenderloin, and the Chinatown/North Beach section. Field interviews included 151 active addicts and program interviews included 149 patients in the San Francisco Department of Health Comprehensive Drug Abuse Program.

Washington, D.C. Six interview areas were selected in Washington, D.C., five of which were predominantly black and the last, mostly Spanish-speaking. A total of 146 active addicts and 163 methadone maintenance patients were interviewed.

A field research team was organized in each of the five cities. Each team was headed by a professionally trained researcher skilled in field techniques and having considerable access to the local drug subculture.

Sample Composition

There were a total of 1,324 street and program interviews, distributed as follows:

City	Street Population	Program Population	Total
New York	131	224	355
Philadelphia	98	101	199
Detroit	73	88	161
San Francisco	151	149	300
Washington, D.C.	146	163	309
Total	599	725	1,324.

[2]Data elicited on mortality statistics and the trace procedure are discussed in chapter V.

As suggested by table 3, the majority of the total population of 1,324 respondents were males (70 percent). In addition, 65 percent were black, 19 percent were white, 13 percent were Hispanic, with the remaining 4 percent in other race/ethnic cohorts. It can be readily seen in these data that the sex and ethnicity distributions varied little between populations. In terms of age, some 69 percent of the total were ages 30 years and under, yet as indicated below, there were numerous variations from sample to sample and from city to city.

City	Street Population (median)	Program Population (median)
TOTAL	29.0	27.6
New York	29.4	26.0
Philadelphia	40.2	27.2
Detroit	26.7	27.0
San Francisco	27.3	29.0
Washington, D.C.	19.7	27.6

Tables 4 and 5 offer more specific age/sex/ethnicity data on the street and program populations, respectively.

A variety of methodological and analytical problems tend to emerge when combining data from two alternative populations. This is especially the case with these data, since in many respects the responses refer to alternative time periods. As a result, the street and program populations will be discussed separately in this analysis. In the summary section of this report, a portion of the data will be combined for the sake of highlighting some prevalence aspects of the phenomena under study.[3]

Findings--Street Populations

Of the 599 street drug users, the overwhelming majority--99.7 percent or 597--admitted to drug use during the week prior to interview. As indicated in table 6, heroin use was by far the most common in that it involved 90 percent of the respondents (74 percent in New York and in excess of 90 percent in all other cities). Marihuana/hashish ranked second, having been used by more than half of the respondents (51 percent).

[3]A variety of analytical problems exist within the Fordham data relative to the time period covered. In the street samples, for example, although respondents were questioned as to whether they had used illicit methadone during the week prior to interview, much of the analysis and data presentation refers to that group who had reported having "ever used" illicit methadone. As a result, some question exists as to the current applicability of a portion of the data. A more serious problem of this sort exists within the program population data, since many of the responses referred to the period prior to each patient's admission to a methadone program, with no indication as to how recent these admissions were.

The current availability of illicit methadone was documented in these data in that 275 persons or 46 percent of the 599 street users had reportedly used methadone during the week prior to interview. There was a considerable variation by city. For example:

- 63 percent (n=62) of the 98 street cases in Philadelphia admitted to the use of methadone.
- 50 percent (n=65) of the 131 street cases in New York admitted to the use of methadone.
- 47 percent (n=71) of the 151 street cases in San Francisco admitted to the use of methadone.
- 40 percent (n=58) of the 146 street cases in Washington, D.C. admitted to the use of methadone.
- 26 percent (n=19) of the 73 street cases in Detroit admitted to the use of methadone.

Among the 275 persons who reported using methadone on the street during the week prior to interview, the majority reported using it once a day or less. Specifically, 265 persons or 96 percent of the methadone users reported taking the drug once a day or less, while the remaining 10 cases had used it several times a day. Of these latter 10 cases, 9 were from New York and 1 was from San Francisco. A more meaningful understanding of the frequency of use can be gained by an examination of the sampled cases that had reported the use of methadone during the 3-month period prior to interview. Of the total street sample (n=599), a total of 418 or 70 percent reported such usage. Of these 418 users:

	N=418	
• daily use	20	5%
• more than once a week	167	40%
• once or twice a month	231	55%.

As such, all of these subjects had used illicit methadone at least once a month, 55 percent had used no more than once or twice a month, 40 percent had used more than once a week (but not daily), and 5 percent were daily users. In addition, the majority of the daily users (80 percent) were in New York and, as indicated below, the "once or twice a month" cohorts in each city almost always represented the largest proportion of users by frequency:

Usage Frequency	N.Y. (n=96)	Phila. (n=75)	Det. (n=40)	S.F. (n=108)	D.C. (n=99)
daily	17%	1%	5%	-	1%
more than once/weekly	36%	56%	20%	46%	32%
once or twice/month	47%	43%	75%	54%	67%.

Over all street respondents, 3 percent reported daily use and an additional 28 percent reported use of illicit methadone more than once a week.

Methadone appeared to be the major drug of abuse for only a minimal number of individuals. As indicated in table 7, only 22 persons or 4 percent of the entire sample indicated methadone as the major drug, and almost three-fourths (73 percent) of these fell within the New York sample. By contrast, heroin was the major drug for most--some 84 percent. Finally, other drugs were indicated as major by only small segments of each city sample.

While these data clearly testify to the availability of illicit methadone, a higher positive response rate was elicited when the sample subjects were questioned as to whether they had "ever used" illicit methadone. As indicated below, 88 percent (n=527) indicated a positive response, with only minimal variation by city:

TOTAL	88% (n=527)
Philadelphia	92% (n=88)
New York	89% (n=117)
San Francisco	89% (n=134)
Detroit	88% (n=64)
Washington, D.C.	85% (n=124).

Of these 527 persons who reportedly used or purchased illicit methadone, heroin was the major drug for some 89 percent (n=469).

The relative availability of illicit methadone in its various forms was indicated by the population who had "ever used" the drug in a street setting. For example, of the 527 sample cases, 97 percent or 509 had used methadone in the liquid vehicle, 52 percent or 274 had used methadone diskets, 40 percent or 213 had used methadone in tablet form, and 13 percent or 67 had used injectable methadone. Broken down by individual cities, as indicated below, methadone in the liquid vehicle was universally the most available form and injectable methadone was the least available form. The apparent availability of diskets and capsules (or tablets), as suggested by these data, fluctuated significantly from place to place.

New York: N=117

liquid vehicle	-	114 or 97%
diskets	-	80 or 68%
capsules	-	32 or 27%
injectable	-	1 or 1%

Philadelphia: N=88

liquid vehicle	-	86 or 98%
diskets	-	28 or 32%
capsules	-	66 or 75%
injectable	-	19 or 22%

Detroit: N=64

liquid vehicle - 55 or 86%
diskets - 44 or 69%
capsules - 25 or 39%
injectable - 8 or 13%

San Francisco: N=134

liquid vehicle - 134 or 100%
diskets - 79 or 59%
capsules - 95 or 71%
injectable - 16 or 12%

Washington, D.C.: N=124

liquid vehicle - 120 or 97%
diskets - 43 or 35%
capsules - 56 or 45%
injectable - 23 or 19%

Data were available which enabled some analysis of the methods of methadone administration. For example, of the 527 persons who had ever used illegal methadone, 501 or 95 percent had reportedly taken the drug orally, 4 subjects or 1 percent had injected the drug, and no data were available on the remaining twenty-two persons. This distribution of responses was not significantly different from city to city.

The 527 street methadone users typically did not use this illegally diverted drug in conjunction with some other substance. Some 437 persons or 83 percent used the drug orally or by injection without any other substance, with 10 percent (n=55) using it orally in conjunction with alcohol and the balance using it with a variety of other drugs (or offering no information). Again, the oral use of the drug (methadone only) was the fairly consistent pattern in all five cities.

An analysis of the data descriptive of the reasons for using illicit methadone reflect a variety of alternatives, since many respondents offered numerous reasons for such use. As suggested by table 8, the diversion of this drug was related primarily to its substitutional use and secondarily to its euphoric use. More than half (58 percent) reported using it to avoid withdrawal, 37 percent to limit their drug habits, 37 percent for temporary detoxification, 17 percent for permanent detoxification, and 13 percent for avoiding withdrawal while on a methadone program "waiting list." Conversely, 38 percent used the drug to get high and 30 percent, as a substitute for poor quality heroin. In addition, 9 percent (n=47) reported methadone addiction. This latter figure reporting methadone addiction must be viewed with some caution, however, since (as noted previously) only 20 cases reported the daily use of illicit methadone. The balance, while claiming addiction, may have been addicted at some time previous to the time of interview.

There was some variation in this pattern by city. In New York, Philadelphia, Detroit and San Francisco, "to avoid withdrawal" was the most frequent reason given for illicit methadone use (table 8). By contrast, "to get high" was indicated by almost two-thirds of the methadone users in Washington, D.C. This phenomenon may be related to the significantly younger sample surveyed in that city.

Among the 198 illicit methadone users who reported use of the drug "to get high," some data were elicited as to how one might get high from the drug. Although definitive responses could not be obtained from all of these users, the general impression was that a methadone high could be obtained by either spacing the use of the drug and thus avoiding the development of tolerance to it, or by using the methadone in conjunction with alcohol. With respect to these methods, it might be noted here that some 55 users had reported using the drug in combination with alcohol.

The fact that 46 percent of the 599 members of the street samples reported using street methadone during the week prior to interview would suggest that diverted methadone was indeed readily available. This notion was further strengthened by directly questioning all respondents as to methadone availability. In total, some 84 percent (n=501) attested to the drug's availability, while only 11 percent (n=67) stated that it was difficult or impossible to obtain, with the remaining cases "not knowing." By combining the data on methadone use and methadone availability, the relative availability of the drug might be gauged for each city in 1974-1975:

- In New York, among the street sample of 131 persons, 95 percent reported that illicit methadone was curcurently available, 87 percent had used the drug during the past year, and 50 percent had used the drug during the week prior to interview.

- In Philadelphia, among the street sample of 98 persons, 81 percent reported that illicit methadone was currently available, 89 percent had used the drug during the past year, and 64 percent had used the drug during the week prior to interview.

- In Detroit, among the street sample of 73 persons, 66 percent reported that illicit methadone was currently available, 37 percent had used the drug during the past year, and 26 percent had used the drug during the week prior to interview.

- In San Francisco, among the street sample of 151 persons, 87 percent reported that illicit methadone was currently available, 88 percent had used the drug during the past year, and 47 percent had used the drug during the week prior to interview.

- In Washington, D.C., among the street sample of 146 persons, 81 percent reported that illicit methadone was currently available, 82 percent had used the drug during the past year, and 40 percent had used the drug during the week prior to interview.

In addition to illicit methadone being available in the five cities studied, the data also indicated that more than one form of methadone might be purchased in the illicit drug marketplace. Some 565 subjects responded to this inquiry, and as indicated below, methadone in the liquid vehicle was the most common form, followed by tablets, diskets, and injectable methadone.

Total Respondents	565	100%
liquid vehicle	501	89%
tablets	98	17%
diskets	57	10%
injectable	23	4%

Methadone in the liquid vehicle was reportedly the most available form in all five cities. The reported availability of tablets and/or diskets was concentrated in New York and San Francisco, with little injectable methadone apparent in any city.

The price structure of black market methadone was reportedly similar from city to city. Most respondents indicated a price within the range of $6.00-$10.00 per dosage of methadone in the liquid vehicle or disket, with the exception of Detroit where prices generally ranged from $11.00 to $15.00.

Although the price structure of street methadone appeared to be somewhat stable, the sources of the drug were variable. As indicated in table 9, the primary source of illegal methadone was apparently methadone maintenance patients, in that some 85 percent (n=152) offered this response. Special dealers in methadone were reportedly active in Philadelphia and Washington, D.C., and general drug dealers were seemingly involved in the methadone traffic in all five cities. Physicians, on the other hand, seemed to be minimally involved, except in San Francisco and Washington, D.C., and reports of traffic by methadone program staff were for the most part limited to Washington, D.C. More specifically:

- In New York, 96 percent of the sample indicated methadone patients as the source of illicit methadone, all suggesting the diversion of take-home medication with a few occasions of stealing from program drug supplies; the involvement of program staff or physicians in the greater community was only minimal, yet some activity was indicated to be among street dealers.

- In Philadelphia, 89 percent of the sample indicated methadone patients as the source of illicit methadone, with almost all of these suggesting the diversion of take-home

medication; as in New York, activity among street dealers was significant, yet program theft, diversion by program staff, or traffic by physicians was extremely limited.

- In Detroit, the illicit methadone marketplace was similar to New York and Philadelphia, with 85 percent of the sample indicating the take-home medication of patients as the overwhelming major source, followed by some street activity by local drug pushers.

- In San Francisco, methadone was seemingly being diverted through a number of sources; 98 percent of the sample indicated patients' take-home medication; drug pushers was suggested by 52 percent; and almost a fourth (21 percent) suggested community physicians.

- In Washington, D.C., an active and complex methadone black market was suggested; among the sample, 61 percent indicated program patients, 40 percent indicated special methadone dealers, 64 percent indicated drug pushers, 38 percent indicated physicians, and 40 percent indicated methadone program staff (at this program, many staff were also patients).

Findings--Program Populations

Of the 725 methadone patients, all reported having used drugs during the week prior to entering treatment. Heroin, as indicated in table 10, had been the most commonly used drug in that it had been reported as used by 90 percent of the samples, followed by marihuana/hashish (43 percent) and cocaine (40 percent).

The availability of illicit methadone to these populations was documented in that 243 persons or 34 percent reported using the drug during the week prior to their entering treatment.[4] Interestingly, there was some variation by city:

- 42 percent (n=94) of the 224 patients in New York admitted to illicit methadone use.

- 41 percent (n=36) of the 88 patients in Detroit admitted to illicit methadone use.

- 34 percent (n=50) of the 149 patients in San Francisco admitted to illicit methadone use.

[4]As indicated earlier, since there is no indication in these Fordham data as to how long patients had been in treatment, these data cannot be used as a measure for the current availability of illicit methadone.

- 26 percent (n=26) of the 101 patients in Philadelphia admitted to illicit methadone.

- 23 percent (n=37) of the 163 patients in Washington, D.C. admitted to illicit methadone use.

Among these 243 patients who had used illicit methadone during the week prior to entering treatment, most had used the drug once a day or less. More specifically, 89 percent (n=216) had used illicit methadone once a day or less while only 27 subjects had used the drug several times a day. This issue of frequency can be better described by an examination of those subjects reporting the use of methadone during the 3-month period prior to entering treatment. Of the total program population of 725, 354 or 49 percent reported such usage, and of these:

	N = 354	
• daily use	50	14%
• more than once a week	156	44%
• once or twice a month	148	42%

and by city:

Usage Frequency	N.Y. (n=136)	Phila. (n=44)	Det. (n=49)	S.F. (n=70)	D.C. (n=55)
daily	21%	14%	4%	13%	7%
more than once/week	46%	50%	51%	40%	35%
once or twice/month	33%	36%	45%	47%	58%.

As was characteristic of the street sample, in which the majority of the daily users of illicit methadone were in New York, some 58 percent of the daily users in the treatment cohort also were in New York.

Overall, 7 percent of program respondents reported daily use of methadone and an additional 21 percent reported use of illicit methadone more than once a week.

Illicit methadone had been the major drug used for only a limited portion of these patients. As suggested by table 11, illicit methadone had been the major drug for only 38 persons--5 percent of the total sample or 16 percent of those who had been using the diverted methadone--and the vast majority of these (76 percent) were New York cases. By contrast, 90 percent of the patients indicated heroin as having been their major drug of abuse.

It might be noted at this point that the data in table 11, when contrasted with that in table 7, shows some interesting differences and consistencies between the street and program populations. As would be expected, for example, the program population reflect a higher proportion of persons whose major drug was heroin--89 percent as opposed to 84 percent of the street population. Similarly, only 1 percent (n=10) of the methadone program populations

indicated the nonaddicting drugs of marihuana/hashish or cocaine as the major drug, as opposed to 7 percent (n=44) of the street populations.

These data also point to some interesting aspects of the alternative New York samples. For example, with both the program and street populations, as indicated below, New York reflected the lowest proportion of persons claiming heroin as their major drug and the highest proportion of persons claiming methadone as their major drug.

Major Drug	N.Y. Street Population		Total Street Population	
TOTAL	131	100%	599	100%
Heroin	79	60%	502	84%
Methadone	16	12%	22	4%

Major Drug	N.Y. Program Population		Total Program Populations	
TOTAL	224	100%	725	100%
Heroin	179	80%	647	89%
Methadone	29	13%	38	5%

Although less than half of the total treatment population cohort had used illegal methadone immediately prior to their admission to a maintenance program, most nevertheless had experiences with the drug in a street setting. As many as 510 persons or 71 percent stated that they had used street methadone at some time, and this varied only minimally by city:

TOTAL	71% (N=510)
Detroit	80% (n=70)
New York	78% (n=172)
Philadelphia	74% (n=75)
San Francisco	73% (n=108)
Washington, D.C.	52% (n=85).

The relative availability of illicit methadone was indicated by those who had "ever used" the drug. Of these 510 persons, 89 percent (n=456) had used methadone in the liquid vehicle, 61 percent (n=311) had used methadone diskets, 51 percent (n=261) had used methadone capsules or tablets, and 12 percent (n=60) had used injectable methadone. The variations by individual cities listed below indicates that the liquid vehicle form was the most common in all areas, followed by diskets, except in San Francisco where capsules were common. Injectable methadone was seemingly minimal, except in Philadelphia where 28 percent of the group had experienced it.

New York: N=172

liquid vehicle	- 154	or 90%
diskets	- 144	or 84%
capsules	- 62	or 36%
injectable	- 12	or 7%

Philadelphia: N=75

liquid vehicle	- 64	or 85%
diskets	- 46	or 61%
capsules	- 43	or 57%
injectable	- 21	or 28%

Detroit: N=70

liquid vehicle	- 51	or 73%
diskets	- 56	or 80%
capsules	- 40	or 57%
injectable	- 2	or 3%

San Francisco: N=108

liquid vehicle	- 101	or 94%
diskets	- 22	or 20%
capsules	- 75	or 69%
injectable	- 17	or 16%

Washington, D.C.: N=85

liquid vehicle	- 85	or 100%
diskets	- 43	or 51%
capsules	- 41	or 48%
injectable	- 8	or 9%

Of the 510 persons who had used illicit methadone prior to entering treatment, 69 percent (n=354) reported using it during the three months before such admission, yet only 50 of these patients (14 percent) reported using it on a daily basis. On the other hand, 58 percent (n=206) reported using it at least once a week with the remaining 42 percent reportedly using it less than weekly. Most of the 510 patients who claimed to have had experience with illicit methadone had used it orally (96 percent or 489) and such oral use was not typically in conjunction with another drug. For example, of the 510 patients who had used illicit methadone, 498 offered data on their use pattern:

- 444 or 89 percent had taken it orally without any other substance
- 25 or 5 percent had taken it orally with alcohol
- 21 or 4 percent had taken it orally in conjunction with some other drug

- 8 or 2 percent had injected the drug.

The reasons for street methadone use indicated by the patient sample suggested that the majority of such use had therapeutic overtones. For example, as indicated in table 12, of the 510 patients who had ever used illicit methadone, some 64 percent had done so to avoid withdrawal, approximately a third had used it to detoxify or to limit a heroin habit, and 43 percent had used it to maintain themselves while on a program waiting list. Conversely, some 35 percent reported using the drug to get high and 36 percent used it as a substitute in the absence of "good" heroin. Of some 177 persons who indicated that they had ever used the drug to get high, the most commonly suggested method for getting high on methadone was taking it in conjunction with alcohol or another drug. Finally, it is of interest here that as many as 126 persons or 25 percent of those who had experienced illicit methadone reported having been addicted to it, and 81 percent of these methadone addicts were New York or San Francisco cases.

The relative availability of illicit methadone was indicated in these data in that 63 percent (n=455) of the total group of 725 patients interviewed responded positively on this issue, while only 23 percent (n=169) felt that it was difficult or impossible to obtain, with the remaining few cases not knowing. Based on those cases who felt that the drug was available, the drug was reported as available for each city as follows:

- New York 80%
- Philadelphia 76%
- San Francisco 67%
- Detroit 55%
- Washington, D.C. 33%.

A total of 604 patients indicated the forms of illicit methadone that were available and the overwhelming response targeted methadone in the liquid vehicle. More specifically, based on the multiple responses of these 604 patients:

- liquid vehicle 77%
- diskets 20%
- tablets 14%
- injectable 4%.

Methadone in the liquid vehicle was clearly available in all five cities, with diskets indicated for New York, Philadelphia and Detroit, small amounts of tablets in New York and San Francisco, and injectable methadone almost nonexistent in all areas.

The price structure appeared to be rather stable from city to city--$6.00 to $10.00 per dose in liquid vehicle or disket--yet a variety of sources for the diverted drug were indicated. As indicated in table 13, the primary source was reportedly patients in methadone programs, in that 587 or 81 percent of the patient sample indicated this source. Of interest in these tabular data are the differences by city. While patients are indicated as primary in

all cities, Washington, D.C. also reflected significant methadone trafficking by special methadone dealers, drug pushers, physicians and methadone program staff. On this latter point, a total of 80 patients reported the availability of the drug through program staff, yet 55 percent of these 80 responses came from the Washington, D.C. cohort.

Findings--Law Enforcement Inquiry

Federal and local law enforcement officials in the five survey cities were consulted regarding their perceptions of and activities concerning methadone diversion.

At the Federal level, beyond the Drug Enforcement Administration's (DEA) inspectional obligations called for under the Controlled Substances Act, enforcement against low level, individual patient sales of methadone was found to be essentially nonexistent.[5]

Local law enforcement personnel generated two alternative perspectives. Administrative, policy-making, and specialist groups (for example, a narcotics squad or division) seemingly attached a low priority to methadone diversion. On the other hand, some front-line commanders, in a few isolated instances, would exhibit concern for the problem only when it generated strong community pressure for police action to control a potentially unmanageable street condition. Concerns of this order, however, only represented peripheral manifestations of diversion, such as congregations of addicts in the vicinity of clinics attempting to buy methadone from patients, visible street sales of methadone and other drugs in the vicinity of maintenance programs, or addicts "nodding" on the streets.

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In summary, the Fordham data suggested that illicit methadone was reported as readily available on the streets of each of the five cities studied. In aggregate form:

- Of the 599 street users interviewed, 46 percent (n=275) used illicit methadone during the week prior to interview

[5]The Fordham study described a situation which was indicative of the relatively low level of Federal activity regarding methadone diversion from an investigational point of view. In one particular case, Federal agents seized a number of bottles of methadone in liquid vehicle as a byproduct of a hard-drug investigation. The hard-drug aspect of the case was vigorously pursued, while the methadone aspect was all but ignored. It was ascertained that the suspect in the case was, in addition to being a drug dealer, a heroin addict and polydrug user. Allegedly, the methadone was for this dealer's own personal use, attempting to control his heroin habit with the methadone. When this was learned, the methadone aspect of the case was dropped, with no further investigative followup beyond a lab analysis of the methadone seized.

and 70 percent (n=418) reportedly used illicit methadone during the 3-month period prior to interview;

- of these 418 users, 5 percent had used the drug on a daily basis, 40 percent had used it more than once a week, and 55 percent had used it once or twice a month.

- Of the 725 patients interviewed, 34 percent (n=243) reportedly used illicit methadone during the week prior to entering treatment and 49 percent (n=354) reported using the drug during the 3-month period before entering treatment;

  - of these 354 users, 14 percent had used the drug on a daily basis, 44 percent had used it more than once a week, and 42 percent had used it once or twice a month.

In spite of the more rigid regulations on take-home medication implemented in March 1973, only 18 (1 percent) of the 1,324 persons interviewed indicated that illicit methadone was impossible to obtain. Even more importantly, less than 1 percent (n=3) of the 599 street users interviewed claimed that diverted methadone was impossible to secure. All indications suggested that the primary source of black market methadone was program patients selling their take-home medication and the most persistently reported form of available illegal methadone was that mixed in liquid vehicle.

When comparing the two study populations, a larger proportion of the street cohort reported the use of illicit methadone. More specifically, some 46 percent of the street population as compared with 34 percent of the client population reported the use of the diverted drug. In addition, there were dramatic differences between the two populations in the city of Philadelphia, and Detroit alone reflected clients reporting the more widespread use of illicit methadone than street users.

City	Street Population		Client Population	
New York	65	50%	94	42%
Philadelphia	62	63%	26	26%
San Francisco	71	47%	50	34%
Washington, D.C.	58	40%	37	23%
Detroit	19	26%	36	41%
Total	275	46%	243	34%

Finally, in comparing the 1975 data with that of the earlier Fordham study, several general conclusions were indicated:

- Illicit methadone was still reportedly available on a broad base during the second study period.

- The chief source of illicit methadone continued to be reported as methadone maintenance patients.

- The principle form of illicit methadone had increasingly become methadone in a liquid vehicle.

- Law enforcement officials at both Federal and local levels continued to place a low priority on diverted methadone.

Most importantly, street respondent data in New York and Philadelphia strongly suggested that the use of illicit methadone had become more widespread. For example:

- 78 percent of the street population interviewed in New York in 1972-73 indicated that they had used illicit methadone at some time, and this proportion increased to 89 percent in the 1974-75 study period.

- 45 percent of the street population interviewed in Philadelphia in 1972-73 indicated that they had used illicit methadone at some time, and this proportion increased to 90 percent during the second study period.

- Among the New York street users, 55 percent reported in 1972-73 that they had used street methadone during the month prior to interview, and this proportion increased to 67 percent during the 1974-75 period.

- Among the Philadelphia street users, 13 percent reported in 1972-73 that they had used street methadone during the month prior to interview, and this proportion increased to 79 percent during the 1974-75 period.

In sharp contrast with these widespread prevalence figures, however, the data also documented that the primary role of street methadone was therapeutic in nature. Among the 527 street users who had reportedly "ever used" the drug, the most frequent reasons for such use apparently involved the self-treatment of addiction. For example:

- 58 percent indicated "to avoid withdrawal"
- 37 percent indicated "to limit a habit"
- 37 percent indicated "temporary detoxification"
- 17 percent indicated "permanent detoxification"
- 13 percent indicated temporary use while on a program waiting list.

Among the 510 subjects in treatment, even higher proportions reported notions implying self-treatment:

- 64 percent indicated "to avoid withdrawal"
- 30 percent indicated "to limit a habit"

- 33 percent indicated "temporary detoxification"
- 27 percent indicated "permanent detoxification"
- 43 percent indicated temporary use while on a program waiting list.

While the Fordham data point to the existence of methadone diversion in the five target cities, the prevalence of this phenomenon can be further examined through analysis of the existing national data systems--CODAP (Client Oriented Data Acquisition Process) and DAWN (Drug Abuse Warning Network).

CODAP

CODAP, sponsored by NIDA, represents a compilation of standardized data on patients in hundreds of drug programs across the nation. The analysis provided here is based on patient intake data from participating programs in the following twenty-four SMSA's (Standard Metropolitan Statistical Areas):

Atlanta	Minneapolis
Boston	New Orleans
Buffalo	New York
Chicago	Oklahoma City
Cleveland	Philadelphia
Dallas	Phoenix
Denver	Raleigh
Detroit	San Antonio
Indianapolis	San Diego
Kansas City	San Francisco
Los Angeles	Seattle
Miami	Washington, D.C.

As indicated in table 14, there were some 100,762 patient admissions reported to the CODAP system from the twenty-four SMSA's during 1975, which represents a 90 percent reporting rate from the participating programs. At admission, a total of 964 persons indicated illegal methadone as their major drug problem, 2,241 indicated illegal methadone as their secondary drug problem, and 666 indicated illegal methadone as their tertiary drug problem. Since these three represent mutually exclusive categories (see CODAP patient intake form in Appendix B), this would indicate that 3.8 percent (n=3,871) of the total program admissions had been users of illegal methadone prior to admission.

Table 15 offers comparative data for each of the twenty-four SMSA's in terms of the total CODAP admissions, the ranked proportion of admissions involving illegal methadone, and the ratio of illegal methadone cases to total admissions. Based on the grouping of these data, it can be seen that New York reflects the highest level of illegal methadone. Of 16,959 CODAP admissions in New York City during 1975, some 12.5 percent reported illegal methadone as a problem drug, and one out of every eight admissions involved illegal methadone.

Ranking SMSA's by the proportion of admissions involving illegal methadone, the top five cities would include New York, Miami, Boston, Kansas City,

and Detroit. Presented in this fashion, however, the ranking cannot necessarily be interpreted as an index of methadone diversion by SMSA, because many of the proportions are based on small numbers. Furthermore, half of the SMSA reporting sites show under 1½ percent of admissions reporting a use of illicit methadone.

The data indicate that while some illegal methadone was apparent across the nation, it was concentrated within a small number of SMSA's. For example:

- Of the 3,871 persons reporting illegal methadone as a problem drug during 1975, some 90 percent were in the New York, Detroit, Philadelphia, Miami, Boston, San Francisco, Chicago, and Los Angeles SMSA's.

- While New York accounted for 16.8% of the total admissions during 1975, it also accounted for as many as 55 percent of those reporting illegal methadone as a problem drug.

DAWN

DAWN is a nationwide program initiated by the Drug Enforcement Administration (DEA), and jointly funded by NIDA, for the purposes of identifying and evaluating the nature and extent of drug abuse in the United States. DAWN incorporates data from various sources, including hospital emergency rooms, crisis centers, and medical examiners, from cities across the nation. There are currently twenty-four SMSA's participating in the DAWN system and the following analysis reports on twenty-two of these areas (identical to those indicated for CODAP, with the exclusion of Kansas City and San Diego) for the year 1975. It might be noted here that DAWN data are compiled in terms of "drug mentions." Drug mentions refer to all drugs, either alone or in combination with one another, reportedly involved in acute or adverse drug reactions, addiction or other drug problems, or as the cause of death. Since a large number of DAWN reports relate to multiple drug problems or casualties, the number of drug mentions far exceeds the actual number of drug users involved.

During 1975, there were a total of 206,889 drug mentions compiled by the DAWN system for the twenty-two SMSA's. Of these, some 1.8 percent (n=3,680) involved methadone. Furthermore, of these 3,860 methadone mentions, their source was indicated as follows:

• legal	1,606	43.6%
• illegal	491	13.3%
• no data	1,585	43.1%.

Table 40 offers comparative data for each SMSA that suggest illegally diverted methadone appeared to some degree in most cities. It must be noted, however, that due to the large "no data" category, it is difficult to determine the extent to which illegal methadone might exist in any given area.[6]

[6]The difficulties with using DAWN data for analyzing methadone diversion are discussed in greater detail in chapter V.

These DAWN data do indicate, on the other hand, that the number of "methadone mentions" is highest in those SMSA's where CODAP data reflect high proportions of illegal methadone users.

V

APPROPRIATE MEASURES OF METHADONE DIVERSION

The findings of the Fordham studies, DAWN and CODAP, along with other data from the literature combine to suggest that the phenomenon of methadone diversion has been an enduring one. The Fordham studies are especially significant in this respect since they not only provide a description of the general nature and structure of diversion, but in addition they suggest relative prevalence estimates in given communities at given points in time. It seems warranted, however, to go beyond the parameters of the time-bound large-scale field study to investigate alternative measures of methadone diversion that can be undertaken on an ongoing basis. The compilation of data which would provide relative indicators of diversion practices over periodic time intervals would have significant policy and planning implications for all agencies and institutions directly involved with methadone maintenance programming. Treatment agencies would have a regular feedback mechanism for assessing patient abuse of the take-home privilege; law enforcement agencies would be provided with indicators of illegal trafficking in methadone; regulatory agencies would have the information necessary for determining the need for alternative control policies; and clinicians would become privy to data appropriate for planning treatment alternatives for possible methadone abuse.

Within this context, it is intended here to discuss a number of alternative methods for assessing the prevalence of methadone diversion in a community. Specifically, the following sources of data are addressed as to their appropriateness as indices of methadone diversion:

- Overdose deaths
- Drug program admissions data; CODAP
- DAWN
- Drug seizures and arrests
- Chemical traces
- Drug thefts
- Short-term studies.

Methadone Overdose Deaths

With the onset of 1969, the incidence of methadone-related deaths began to reflect important increases in several cities across the nation. By 1973, in New York City, there were some 181 deaths involving methadone, with an additional 401 deaths involving methadone in combination with other drugs. During the first six months of 1974, the number of deaths involving methadone only (n=131) were accumulating at a rate which suggested that they might significantly exceed the previous year's total. If it can be assumed that patients stabilized on methadone are not exposed to toxic doses of the drug

through legitimate clinical channels and that such toxic doses could hence be obtained only through black market sources, the mortality data as it exists in New York would suggest that methadone overdose death statistics might have utility as one index of diversion.

In counterpoint, numerous difficulties exist when attempting to use overdose death data to assess diversion. There is, for example, an absence of consistent autopsy reporting systems across the nation. In Boston, for example, where all methadone take-home medication was stopped in 1972, the Fordham researchers indicated that there were no usable chemical autopsy figures available for determining any impact of the "no take-home" policy.

Skepticism regarding the interpretations of overdose findings among coroners and medical examiners was voiced by Dr. Milton Halpern, retired Chief Medical Examiner of New York City, when he noted that some forensic pathologists tend to overinterpret drug death cases in favor of methadone:

> I became suspicious when statistics for the first half of 1973 were leaked from my office. I personally rechecked every case and found that only 10 percent of the deaths could be directly attributed to heroin and 11 percent to methadone. In 79 percent of the cases all sorts of drugs were mixed, including alcohol, barbiturates, cocaine, Quaalude, and so forth. One reason that methadone might be listed as the principle cause of death in so many cases is that it comes up easily (in chemical analyses), and that's what gets in the reports (Lanonette 1974).

An alternative issue in this respect is one which directly attacks the whole notion of the drug overdose. Numerous toxicologists and forensic pathologists claim that deaths seemingly involving narcotics cannot be called "overdose," for there has never been any evidence that such deaths are actually the result of "overdose."[1]

In light of these apparent problems, medical examiner/coroner data can nevertheless be utilized as a partial indicator of the existence of methadone diversion in a given community. In an attempt to discover any utility in such data, the author examined all drug-related deaths in Dade County, Florida for the period January 1, 1956 through December 31, 1975. As indicated in table 41, the first death involving methadone occurred in 1969. Since that time, there have been a total of 34 deaths related to this drug, with chemical analyses following consistent procedures.

Clearly, a portion of these deaths (41 percent) involved drugs in addition to methadone, the majority being sedative-hypnotics with high lethal qualities. Furthermore, it was not always clear even in the "methadone-only" cases whether methadone was the primary cause of death.

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[1]There is an extensive body of literature on this "overdose" debate. Early work on this issue is discussed and referenced at length in Brecher (1972). Significant later analyses appear in Greene, Luke and DuPont (1974a, 1974b).

The foregoing would suggest that considerable difficulties may exist in designating methadone as the primary cause of death, for medical examiner testimony indicates that any presence of methadone is easily observable through chemical analysis. Nevertheless, in those communities where procedures and manpower permit reasonably thorough investigations of accidental deaths involving drugs, medical examiner/coroner data can be useful as a partial indicator of methadone diversion. It must be cautioned that medical examiner/coroner data would represent, at best, an indicator of the presence and relative trends of methadone diversion and could not be used for projecting incidence or prevalence estimates.

Drug Program Admissions Data

Patient intake data has long since represented one of the richest sources of information for the drug researchers. These data have been utilized for a variety of purposes, including studies of methadone diversion. It might be remembered, for example, that the early benchmark studies of methadone addiction, methadone diversion, and methadone supplementation were initiated through these routinely collected data.[2]

In many instances, the data collected in the studies noted above had to go beyond the information immediately available on the standard program instruments. With the inception of CODAP (Client Oriented Data Acquisition Process), sponsored and mandated by the National Institute on Drug Abuse, standardized intake data have been and are being routinely collected on patient admissions across the nation in hundreds of programs. An overview of the CODAP Admission Report (see Appendix B) suggests the availability of useful data pertinent to the issue of methadone diversion. Data are elicited as to a client's drug history, with illegal methadone designated as a specific element. If the use of illegal methadone is stated as a patient's primary, secondary, or tertiary drug problem, additional information is recorded as to the frequency and duration of use.

As noted in the previous chapter, an examination of the CODAP data by SMSA reflected that 3.8 percent of the admissions during 1975 involved illicit methadone. Since the reporting rate to the CODAP system was considerably lower prior to January 1975, it would be difficult to compare the proportions of illicit methadone admissions over time. However, an analysis of the absolute numbers of these admissions nevertheless offers some insight into the rate of illicit methadone users in the given SMSA's.

As indicated below, the number of illicit methadone-related admissions to the total CODAP-SMSA system has been generally stable since the last quarter of 1973. Table 42, which offers corresponding data for each SMSA, suggests similar patterns for most areas.

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[2]See, for example, Sapira, Ball, and Cottrell (1968); Stephens and Weppner (1973); Weppner and Stephens (1973); Chambers and Bergen (1973).

1973	2nd quarter	647
	3rd quarter	784
	4th quarter	1,006
1974	1st quarter	1,021
	2nd quarter	1,099
	3rd quarter	1,034
	4th quarter	814
1975	1st quarter	1,083
	2nd quarter	893
	3rd quarter	997
	4th quarter	898
1976	1st quarter	1,094

The reader is reminded here that methadone diversion does not operate independently of other drug-related factors in a community. Rather, it is logically related to the number of drug users, methadone programs, and methadone maintenance patients. As such, one might compare city-to-city methadone diversion rates (CODAP-based), calculating the number of illegal methadone-related admissions per program or per patient in each reporting SMSA. This, furthermore, could reflect relative trends for each given area.

CODAP can provide more than a simple "headcounting" of methadone-related admissions. In addition, it can describe this population of illicit methadone users. In an effort to view these data, the author accessed the central intake data bank of the Metropolitan Dade County Comprehensive Drug Program (CDP). During the period of August 1, 1974 through January 1, 1975, there were a total of 1,302 admissions to the CDP Central Intake--a unit which processes all applicants/admissions to the twenty-five drug treatment programs in Dade County, Florida. Since accessing this information bank was structured for demonstration purposes only, a minimum of data were drawn. As indicated in table 43, there were 59 cases, representing 5 percent of the total cohort, who reported illegal methadone as a primary, secondary, or tertiary drug problem. Interestingly, these illicit methadone users looked considerably different from those described in other studies. They were considerably older, with 97 percent being ages thirty-five years and above, and the majority were white/nonSpanish speaking (51 percent), with an additional 36 percent of Latin extraction.

While CODAP data can be probed for indicators of methadone diversion among those populations being admitted to drug treatment programs, TASC (Treatment Alternatives to Street Crime) data can be examined for corresponding indicators of diversion among drug users coming to the attention of the criminal justice system. TASC was established in 1972 through the Special Action Office for Drug Abuse Prevention (SAODAP) and the Law Enforcement Assistance Administration (LEAA). Currently operated by LEAA, the TASC program provides community-based treatment for arrested addicts at the court's discretion and as a condition of release (National Advisory Commission 1973: 96).

As was done with the Dade County CODAP, a demonstration run was also undertaken with the Dade County TASC file. For the period April 1, 1974 through March 31, 1975, a total of 5,993 cases were processed by TASC, and as suggested by table 44, 3 percent (n=198) reported having "ever used" illicit methadone, and 1 percent (n=46) reported its current use prior to arrest and processing by TASC. In contrast with the CODAP data, it is of interest here that the TASC cases were considerably younger, more often male, and more likely black than Latin.[3]

In sum, both CODAP and TASC data can be utilized as indicators of the prevalence and trends of methadone diversion in those communities where these systems have been implemented. Since they reflect data collected immediately upon a patient's or arrestee's movement from the street community, such data have applicability for a specific/current point in time. There are two cautions which must be exercised, however, when interpreting CODAP and TASC data. Initially, although the patients and arrestees may have been recently active in the street community, numerous studies have documented that these "officially known" samples are often different from the balance of the active street subculture. As such, these data cannot be projected to the drug-using community as a whole. Secondly, since many TASC clients are diverted to community-based treatment programs which utilize the CODAP information system, caution must be taken to avoid placing the same patient in the tabulations of both populations.[4]

DAWN

As noted in the previous chapter, the DAWN system accumulates drug use data from a variety of sources for the purpose of analyzing the changing drug scene across the nation. While DAWN is of considerable value as a barometer of drug use, it has some limitations as an index of methadone diversion. Initially, although the DAWN data collection form allows for the source of a drug, this information is not routinely collected by all reporting sites. Secondly, it is difficult to determine the validity of the methadone/DAWN data. If a person is in methadone treatment, this fact is not always reported to the DAWN system. Furthermore, an acute reaction to methadone might be a medical problem resulting from legitimately-prescribed methadone, street methadone, legitimately-prescribed and street methadone in combination, or methadone combined with one or more undetected drugs. In an effort to mitigate this problem, a validation study might be useful, involving a random selection of cases during a given prior month. At the outset, the validation could include a review of the information provided on the DAWN report forms as well as the preparation of a case summary by the DAWN reporters. These forms and summaries could then be supplemented by additional emergency room, crisis center, and medical examiner file data, and compared with the prior reports submitted to DAWN on the same cases.

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[3]For a copy of the TASC data collection form, see appendix B.

[4]It might be added here that the TASC data are collected prior to court adjudication. Thus, these data are descriptive of those eligible for TASC and represent a population larger than that actually released to TASC.

An alternative to the segment of DAWN which probed hospital emergency room data had been operative at the University of Miami School of Medicine from 1972 through 1976. This project, under a grant from NIDA,[5] recorded more inclusive data on every emergency room admission for acute or adverse reaction to drugs. The project activities were centered at Jackson Memorial Hospital in Miami, which has the fourth largest emergency room in the nation. For the period January 1, 1972 through December 31, 1975, a preliminary tabulation indicated some 9,600 drug-related admissions and, of those, 226 or 2 percent involved methadone. Table 45 offers a brief description of these cases and indicates that for each year of study, at least 60 percent were related to methadone overdose or addiction. While these data do not provide a direct indication of methadone diversion, supplementary interview data from attending physicians and nurses might indicate, at least, whether the patient was receiving methadone legitimately, or if there were signs of other drug use that may not have been recorded on the patient's intake form.

As such, hospital emergency room data could be used as a partial indicator of diversion through an overview of the methadone reaction data and some followup to determine if the patients involved were locally registered in a methadone program.

While the DAWN system may present some difficulties as an index of diversion, it can nevertheless be viewed as a relative indicator of trends in acute reactions to methadone. Data descriptive of the thirty-six leading drugs of abuse for the total DAWN system for the period April 1974 to April 1975 reflected a steady decline in methadone reactions. For example:[6]

- Of 266,880 drug mentions, methadone ranked 9th with 5,634 mentions or 2.1 percent of all mentions.
- The proportion of methadone mentions decreased from 2.7 percent of all mentions in April 1974 to 1.7 percent in March 1975 (April 1975 data incomplete).
- Over the 12-month period, total methadone mentions decreased by some 46 percent.

It might be added here that the current DAWN reports reflect methadone mentions by type of reporting facility, motivation for use, source of supply, and concomitancy. By further crosstabulation of these variables (which would be possible since the data are in the system), one could determine the relative proportion of methadone reactions (both acute and/or fatal) that occurred from diverted drugs and not in combination with some other drug. Using the

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[5]DHEW Grant No. H81 DA 008800-3 to the Division of Addiction Sciences, Department of Psychiatry, University of Miami School of Medicine, May 1, 1972-November 30, 1976.

[6]The reader is again reminded of the nature of DAWN "drug mentions." The number of mentions does not indicate the number of reactions to a given drug, since many reactions occur from combinations of drugs. As such, there is multiple counting in the compilation of drug mentions. For an examination of these DAWN data, see Project DAWN III (1976).

frequency distributions now provided by DAWN tabulations, only the following are apparent in this behalf:

Total Methadone Mentions	5,634
Facility Distribution	
emergency rooms	52%
inpatient units	19%
medical examiners	19%
crisis centers	10%
Concomitancy	
alone	54%
in-combination	46%
Motivation (multiple answers)	
psychic effects	11%
dependence	75%
suicide attitude/gestures	4%
other/unwilling	1%
no data	10%
Source (multiple answers)	
legal Rx	52%
forged Rx	1%
stolen	2%
street buy	18%
all other	-
no data	28%

Although no definitive conclusions can be made from these data in their present form, they do suggest that the proportion of "methadone alone" overdoses resulting from diverted supplies is relatively low.

Drug Seizures and Arrests

The unreliability of official criminal statistics as measures of the prevalence and incidence of offense behavior has been well documented. This is especially true in the case of drug law violations, since there is no discernible victim per se and the offense must be directly observed or suspected by the arresting officer. Extensive data exist, nevertheless, which document "crimes known to the police" and these can be used as relative indicators of crime in a community. Special problems exist, however, when attempting to elicit indicators of methadone diversion from official arrest data. First, as suggested in the Fordham study's law enforcement inquiry, police personnel do not view methadone diversion as one of their pressing concerns. This may of course result from a realistic point of view--that there is comparatively little methadone on the street.

More crucial in this respect is the way in which drug arrest data are typically grouped in official criminal statistics. The Fordham research team, for example, compiled drug arrest statistics for the years 1968-1974 in New York City. These data had been grouped in official reports under the following categories:

- Total drug arrests
  - heroin
  - cocaine
  - cannabis
  - synthetic opiates
  - stimulants/depressants
  - hallucinogens
  - narcotics paraphernalia.

Methadone, in this categorization, is designated under "synthetic narcotics." During the 7-year period in New York City, total drug arrests declined from 22,429 in 1968 to 16,781 in 1974, reflecting a decrease of some 25 percent. During the same period, "synthetic opiate" arrests advanced from 65 in 1968 to 663 in 19[illegible]-an increase of some 920 percent. This can only suggest that while these arrests represented only a small proportion of the total drug cases--less than 1 percent in 1968 and almost 4 percent in 1974--their relative numbers were increasing and, hence, the amount of one or more "synthetic narcotics" evident on the street, as well, had multiplied. As an index of diversion, these data are lacking in that "synthetic narcotics" is not a pure category in many jurisdictions. While methadone may be a significant item in this categorization, it also includes meperidine (Demerol), another synthetic narcotic having noticeable popularity among heroin addicts.

Although this phenomenon does not exist in all jurisdictions and was not specifically addressed in the Fordham study, the five city survey did establish that in all the target sites, the data on methadone arrests and seizures was highly problematic. The greater concern for heroin possession and trafficking generated the problem of differential law enforcement in the drug area. Detailed information on methadone diversion and illicit distribution systems, which might be secured through concentrated police investigation, cannot be readily anticipated.

Chemical Traces

In an effort to determine the degree to which methadone was being diverted from specific programs, a trace procedure was instituted in both Fordham studies. A combination of food-grade amino acids were used to "tag" the methadone dispensed by selected programs, which would be ultimately searched for in samples of methadone seized by Federal and local law enforcement agencies.

This would appear as a sound method for determining which clinics reflected the heaviest involvement in diversion and, hence, would be appropriate for policy, planning, and control decision-making. In the 1972-73 Fordham study (see Martin, et al. 1973:30-138), the trace procedure was instituted in the cities of Miami, Philadelphia, St. Louis, New York, and San Juan. The

trace was mixed in the liquid methadone (and in some instances the bulk powder used in the preparation of the liquid form) and dispensed from a selected clinic in each city. Local and Federal law enforcement agencies agreed to notify project staff of any methadone seizures and analyze them for the presence of the trace. With respect to the coordination of the trace in each city:

- In Miami, the reporting agency on local law enforcement activities was the Dade County Medical Examiner's Office, and at the Federal level, the DEA-Miami Regional Laboratory; the trace was inserted in the methadone dispensed at the Jackson Memorial Hospital methadone maintenance clinic.

- In Philadelphia, the reporting agency on local law enforcement activities was the City of Philadelphia Police Department Laboratory, and at the Federal level, the DEA-New York Regional Laboratory; the trace was inserted in the methadone dispensed at the West Philadelphia Community Health Consortium.

- In St. Louis, the reporting agency on local law enforcement activities was the City of St. Louis Police Laboratory, and at the Federal level, the DEA-Chicago Regional Laboratory; the trace was inserted in the methadone distributed at the Narcotic Addiction Treatment Program of the Missouri Institute of Psychiatry, University of Missouri.

- In New York, the reporting agency on local law enforcement activities was the City of New York Police Laboratory, and at the Federal level, the DEA-New York Regional Laboratory; the trace was inserted in the methadone dispensed at the Addiction Research and Treatment Corporation.

- In San Juan, the reporting agency was the Police Department of Puerto Rico Laboratory; the trace was inserted in the methadone dispensed at the Commonwealth of Puerto Rico Department of Social Services.

The trace procedures endured for approximately 13 months in Miami, 3 months in New York, 7 months in Philadelphia, 5 months in St. Louis, and 4 months in San Juan. During this period, thousands of methadone doses were tagged. As indicated in table 46, the results of the procedure were minimal. There were a total of only 29 seizures of methadone in the liquid vehicle, of which only one reflected the presence of the chemical trace.

In the 1974-75 Fordham study (see, Martin, et al. 1975:321-332), the trace procedure was instituted in three programs in New York and in six programs in Philadelphia. The overall procedures were essentially the same as the previous effort, with only one major difference. In the first study of methadone diversion, police chemists searched for the trace; in the second, the police laboratories were requested to send the liquid residue remaining from their analyses to the Fordham University Chemistry Department where the search for the trace materials would be made.

As in the first study, the results were again limited. During the almost six-month procedure in New York and Philadelphia, the findings were as follows:

Agency	Total Analyses	Positive Results
New York		
N.Y.C. Police Lab	268	2
D.E.A. Lab (N.Y.)	18	0
Philadelphia		
Phila. Police Lab	26	0
D.E.A. Lab (N.Y.)	0	0.

During the late phases of the trace study in New York in 1974-75, information was recorded from those seizures of methadone that were in clinic bottles having their program labels still intact. There were a total of 72 labeled seizures, and these bore the identifiers of 38 different clinics, with an additional five described as having come from private physicians. In contrast with the chemical trace procedures, the data elicited from the label study had significantly more usefulness in targeting clinics from which methadone was being diverted. It can be argued, however, that in spite of these label data, this technique nevertheless has only minimal value as either an index of diversion or a mechanism for targeting diversion sources. If in fact methadone diversion is given low priority by police personnel, any mechanism grounded in data from such seizures would have limitations.

Drug Thefts

During the fiscal year 1973, registrants reported to DEA some 6,382 thefts and losses of controlled substances, totaling more than 50 million dosage units. Of these 6,382 thefts and losses, some 1,488 involved methadone, distributed as follows:

Nature of Loss	Number of Losses	Dosage Units
TOTAL	1,488	1,741,256
night breakin	1,073	961,851
armed robbery	317	693,590
employee theft	16	12,441
customer pilferage	11	6,163
all other	71	67,211.

As indicated above, there were 1,741,256 dosage units of methadone lost or stolen (Comptroller General 1975:4), representing more than 3 percent of all losses/thefts of controlled substances during fiscal 1973.

A DEA study in its Region II (all of New York State and 11 northern New Jersey counties) documented the theft of 54,007 dosage units of methadone

during the period July 1973 through June 1974 (Martin, et al. 1975:316). These data combine not only to demonstrate the existence of a methadone black market, but also to suggest that predatory mechanisms have necessarily emerged to meet the demands of this illicit market. As such, it can be suggested here that the extent of methadone thefts is clearly a relative measure of the illicit use of the drug and, by definition, represents an alternative and direct (although incomplete) indicator of diversion.

Short-Term Field Studies

The field study has been generally accepted as a reliable method of generating indicators of methadone diversion within a given community. This was demonstrated by the Chambers-Inciardi (1972) study several years ago and by a variety of research endeavors since that time. In light of our current concern with methadone diversion, the Chambers-Inciardi research and others like it can be appreciated now only as pilot efforts and contributions to a preliminary knowledge base, since they relate only to a restricted geographic base.

By contrast, the Fordham studies were of a more comprehensive nature, offering information for a variety of communities across the nation. Yet depending on the needs for diversion data within policy, planning, clinical, or control orientations, even the expansive nature of the Fordham surveys is beset with some limitations.

From the perspective of those concerned with both the positive and negative aspects of methadone diversion, the need for current, ongoing, and cross-sectionally representative diversion data is imperative. The large scale studies cannot meet this need; they are time-consuming, enduring up to two years, and they are too expensive to permit their repetition on a regular basis.

A recent effort by Preble (1976), involving the collection of ethnographic data on the behavior of heroin consumers in the Yorkville section of New York City, reflected the basis for eliciting current, ongoing, and cross-sectionally representative data on methadone diversion.

In an effort to test a method for securing data on methadone diversion within a limited time frame, the author undertook a pilot study during the period February 15, 1976 through February 24, 1976. It was not intended in this pilot study to generate a current portrait of methadone diversion. Rather, it was hoped to test the feasibility of quickly securing empirical descriptive data on the methadone street scene.

In Philadelphia, 10 methadone maintenance patients indicated that illicit methadone was locally available. Two of these 10 patients were purchasing the diverted drug at a cost of $15 for a 70 mg. bottle of methadone mixed with Tang.

In New York, 10 active heroin users were black males under the age of 25. Seven of the 10 addicts had used illegal methadone since January 1, 1976, having purchased alleged 40-60 mg. doses from local maintenance patients at a

cost of $8-$14 per dose. Six of the 7 users were taking the drug "to get high" by using it in conjunction with alcohol, or low-dose heroin and alcohol; the other methadone user was attempting to detoxify.

In Miami, of 33 patients in two clinics, 55 percent (n=18) reported that methadone was readily available on the streets, 30 percent (n=10) reported that it was not, and the remaining 15 percent (n=5) claimed that they did not know. Among those who claimed the drug to be available, most agreed that methadone was less available than it was a year ago, but that it could be purchased for $10-$20 per dose in the black sections of the city and in the adjacent cities of Hollywood and Ft. Lauderdale. Interestingly, among the 15 patients who stated either that methadone was not available or that they did not know, some two-thirds (n=10) were from the clinic in the predominantly white community where methadone was not characteristically visible on the street. The 12 active heroin addicts in Miami were black males ranging in age from 14 to 34 years. Six had used street methadone since January 1, 1976, all purchasing the drug at a cost of $20 per dose from the same methadone dealer. This dealer indicated to the author that his supplies had come from a significantly large theft from a methadone program in New York during the latter part of 1975.

Since both qualitative and quantitative information of this sort can be secured readily and at low cost, the structuring of methadone diversion information studies might be economically realized.

Another technique for gathering data with regard to users' reports of street availability and use would involve having individual programs add to their routine intake interview schedules a series of questions dealing with newly admitted clients' street use of illicit methadone. Depending on size of program, such a series of questions might be asked of some sample of newly admitted clients on a semi-annual or more frequent basis to assess both current use of illicit methadone and trends in that use. Thus, questions might be asked of each client admitted regarding:

- Use or nonuse of illicit methadone over the course of the preceding three months
- Frequency of such use
- Source of that methadone (if known)
- First opiate used by the incoming client
- Client's report of availability of street methadone in preceding month as compared to availability six months previously
- Client's thinking about the comparative danger of overdose associated with street methadone as compared to heroin
- Form in which the street methadone is occurring

- Route of administration of that methadone
- Reason for use of street methadone
- Cost of the street methadone.

Obviously, depending on the interest of the particular treatment program, this list could either be lengthened or shortened. However, some continuing assessment of the street situation with regard to methadone use as reported by incoming clients would permit the treatment program and the community to keep track of methadone availability and use, and to note trends in either that use or in the reasons for which street methadone is used.

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In summary, there are numerous sources of data on methadone diversion. For the most part, none of these can stand alone as absolute indices and most represent only partial indicators. Community/treatment program assessments of methadone diversion combined with figures drawn from CODAP, drug seizures and thefts, would appear to be a promising mechanism for compiling ongoing, timely, economical, and cross-sectionally representative data. And with some revisions in the DAWN system designed to focus still more clearly on the sources of drugs, such a compilation would have even greater utility.

Finally, in utilizing these or any other sources of data for assessing the prevalence of methadone diversion, one must bear in mind the potential number of sources of diversion in a given area. The level of methadone diversion in any given area is necessarily related to the number of addicts, the number of methadone maintenance program units, and the number of methadone maintenance patients in that area. Table 47 indicates the number of program units and clients as of March 1976, as reported to the National Drug Abuse Treatment Utilization Survey (NDATUS). The data represent 95 percent of the units reporting to NDATUS and 90 percent of all methadone maintenance units in the country. These data can serve to target those areas where methadone is concentrated and, hence, where its diversion is more likely to appear at significant levels.

Finally, it should be noted that the introduction of L-alpha acetylmethadol (LAAM) as a replacement drug for methadone is likely to have a significant impact on the problem of diversion. It appears likely that over the course of the next several years increasing numbers of clients now maintained on daily dosages of methadone will be switched to LAAM, which can be administered in the clinic once every three days. Clinical use of LAAM, drunk in the presence of the medical staff, makes unnecessary any use of take-home medication. While the real impact of LAAM on the problem of the diversion of medication is at this time unclear, it seems likely that the substitution of that drug for methadone can only lead to a reduction in the availability of medication diverted from treatment programs.

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APPENDIX A:

Tables

TABLE 1: THE INCIDENCE OF METHADONE POSITIVE URINES AMONG 257 NARCOTIC ADDICTS REQUESTING TREATMENT DURING 1971 (METROPOLITAN DADE COUNTY COMPREHENSIVE DRUG PROGRAM)*

RACE/SEX COHORTS	DISTRIBUTION WITHIN APPLICANT POPULATION	PERCENT POSITIVE FOR METHADONE	POSITIVE METHADONE AND NEG. HEROIN
BLACK MALES	143 (56%)	35% (50)	4% (6)
WHITE MALES	61 (24%)	44% (27)	15% (9)
BLACK FEMALES	28 (11%)	29% (8)	4% (1)
WHITE FEMALES	25 (10%)	52% (13)	12% (3)
TOTAL	257 (100%)	38% (98)	7% (19)
TOTAL BLACKS	171 (67%)	34% (58)	4% (7)
TOTAL WHITES	86 (33%)	47% (40)	14% (12)
TOTAL MALES	204 (79%)	38% (77)	7% (15)
TOTAL FEMALES	53 (21%)	40% (21)	8% (4)

RACE/SEX COHORTS	AMONG POSITIVE METHADONE/NEGATIVE HEROIN	
	A. MEDIAN AGE	B. MEDIAN YEARS OF OPIATE USE
BLACK MALES	23	5
WHITE MALES	25	5
BLACK FEMALES	20	4
WHITE FEMALES	20	1
TOTAL	23	5
TOTAL BLACKS	24	5
TOTAL WHITES	20	3
TOTAL MALES	23	5
TOTAL FEMALES	24	2

*Note: There were a total of 260 new applications for treatment. Three have been excluded from analysis because of incomplete data.

TABLE 2: HISTORY OF METHADONE USE AMONG 25 MALE METHADONE ADDICTS AT THE LEXINGTON PUBLIC HEALTH SERVICE HOSPITAL

Case No.	Occupation	Age	Route of Administration	Source of Methadone	Years of Use
1	Odd jobs	35	Intramuscular	Physician	8
2	Farmer	56	Intravenous	Physician	3
3	Cook	73	Oral	Physician	1
4	Illegal	31	Oral	Physician	15
5	Driver	30	Intravenous	Physician	3
6	Illegal	29	Intravenous	Pusher	1-3
7	Unemployed	44	Oral	Physician	1-5
8	Retired	75	Oral	Physician	9
9	Truckdriver	35	Intravenous	Pusher	6
10	Illegal	50	Intravenous	Physician	3-6
11	Illegal	56	Oral	Physician	4
12	Illegal	36	Intravenous	Pusher	5
13	Salesman	46	Intravenous	Pusher	8
14	Illegal	27	Oral	Pusher	1
15	Retired	70	Intravenous	Physician	2
16	Physician	51	Intravenous	Drugstore	1
17	Unemployed	53	Intramuscular	Physician	14
18	Unemployed	40	Intravenous	Pusher	2
19	Disabled	35	Intramuscular	Physician	3
20	Unemployed	46	Intramuscular	Physician	1
21	Unemployed	36	Oral	Physician	7
22	Illegal	36	Oral	Physician	6
23	Plumber	54	Intramuscular	Physician	1
24	Clerk	43	Intramuscular	Pusher	9
25	Unemployed	55	Oral	Physician	1-3

Source: Joseph D. Sapira, John C. Ball, and Emily Cottrell, "Addiction to Methadone Among Patients at Lexington and Fort Worth," Public Health Reports, 83 (1968), pp. 691-694.

TABLE 3: SELECTED DEMOGRAPHIC CHARACTERISTICS OF STREET AND PATIENT POPULATIONS

Characteristic	Street		Patient		Total	
TOTAL	599	100%	725	100%	1324	100%
Sex:						
males	429	72%	503	69%	932	70%
females	170	28%	222	31%	392	30%
Age:						
17 years or less	28	5%	5	1%	33	2%
18-23 years	187	31%	144	20%	331	25%
24-30 years	225	38%	335	46%	560	42%
31-40 years	123	21%	165	23%	288	22%
41 years and above	35	5%	74	10%	109	8%
Ethnicity:						
white	107	18%	139	19%	246	19%
black	377	63%	480	66%	857	65%
Hispanic*	86	14%	83	11%	169	13%
other	27	5%	23	3%	50	4%

*Hispanic respondents included Puerto Ricans in New York, Mexican-Americans in San Francisco, and Puerto Ricans and/or South Americans in Philadelphia and Washington, D.C.

Note: Percentages do not always total to 100 due to rounding.

TABLE 4: SELECTED DEMOGRAPHIC CHARACTERISTICS OF STREET POPULATIONS

Characteristic	New York	Philadelphia	Detroit	San Francisco	Washington	Total
Total	131	98	73	151	146	599
Sex:						
males	79%	81%	66%	60%	75%	72%
females	21%	19%	34%	40%	25%	28%
Age:						
17 years or less	2%	--	--	2%	15%	5%
18-23 years	35%	7%	23%	20%	60%	31%
24-30 years	38%	42%	45%	48%	19%	38%
31-40 years	18%	38%	29%	23%	5%	21%
41 years and above	7%	13%	3%	7%	1%	5%
Ethnicity:						
white	9%	18%	37%	24%	9%	18%
black	68%	76%	63%	32%	83%	63%
Hispanic*	21%	5%	--	28%	8%	14%
other	2%	1%	--	16%	--	5%

*Hispanic respondents included Puerto Ricans in New York, Mexican-Americans in San Francisco, and Puerto Ricans and/or South Americans in Philadelphia and Washington, D.C.

TABLE 5: SELECTED DEMOGRAPHIC CHARACTERISTICS OF PROGRAM POPULATIONS

Characteristic	New York	Philadelphia	Detroit	San Francisco	Washington	Total
Total	224	101	88	149	163	725
Sex:						
males	72%	73%	69%	61%	71%	69%
females	28%	27%	31%	39%	29%	31%
Age:						
17 years or less	--	--	--	--	3%	1%
18-23 years	20%	8%	20%	15%	32%	20%
24-30 years	41%	66%	64%	37%	40%	46%
31-40 years	26%	18%	14%	32%	19%	23%
41 years and above	13%	8%	2%	16%	6%	10%
Ethnicity:						
white	15%	10%	25%	41%	7%	19%
black	56%	88%	73%	37%	90%	66%
Hispanic*	28%	1%	--	10%	2%	11%
other	1%	1%	2%	12%	--	3%

*Hispanic respondents included Puerto Ricans in New York, Mexican-Americans in San Francisco, and Puerto Ricans and/or South Americans in Philadelphia and Washington, D.C.

TABLE 6: DRUGS USED DURING THE WEEK PRIOR TO INTERVIEW--STREET POPULATIONS

Drug	New York	Philadelphia	Detroit	San Francisco	Washington	Total
TOTAL	131	98	73	151	146	599
Heroin	74%	92%	97%	95%	93%	90%
Marijuana/ Hashish	61%	32%	62%	54%	47%	51%
Methadone	50%	63%	26%	47%	40%	46%
Cocaine	55%	37%	36%	36%	48%	43%
All Other	15%	12%	11%	33%	32%	23%

Note: Percentages do not total to 100 due to multiple answers.

TABLE 7: PRIMARY DRUG OF ABUSE--STREET POPULATIONS

Drug	New York	Philadelphia	Detroit	San Francisco	Washington	Total
TOTAL	131	98	73	151	146	599
Heroin	60%	88%	96%	95%	85%	84%
Marijuana/ Hashish	15%	--	--	1%	1%	4%
Methadone	12%	2%	3%	--	1%	4%
Cocaine	7%	3%	1%	1%	5%	4%
All Other	5%	7%	--	3%	6%	5%
No Data	2%	--	--	--	1%	1%

Note: Percentages do not total to 100 due to rounding.

TABLE 8: REASONS FOR USING ILLICIT METHADONE--STREET POPULATIONS

Reasons for Use	New York	Philadelphia	Detroit	San Francisco	Washington	Total
Total	117	88	64	134	124	527
to avoid withdrawal	44%	65%	47%	81%	45%	58%
to get high	35%	29%	25%	32%	61%	38%
to limit habit	24%	47%	44%	48%	27%	37%
temporary detox.	30%	42%	13%	61%	27%	37%
heroin substitute	11%	20%	20%	59%	27%	30%
permanent detox.	4%	2%	8%	54%	3%	17%
"waiting list"	22%	7%	3%	24%	1%	13%
methadone addiction	12%	6%	5%	19%	2%	9%
all other/no data	3%	4%	--	--	1%	1%

Note: Percentages do not total to 100 due to multiple answers.

TABLE 9: SOURCES OF ILLICIT METHADONE--STREET POPULATIONS

Source	New York	Philadelphia	Detroit	San Francisco	Washington	Total
TOTAL	131	98	73	151	146	599
Patients	96%	89%	85%	98%	61%	85%
Special Dealers	16%	65%	5%	15%	40%	29%
Pushers	32%	52%	29%	52%	64%	48%
Doctors	4%	15%	5%	21%	38%	19%
Staff	10%	13%	8%	9%	40%	18%

Note: Percentages do not total to 100 due to multiple answers.

TABLE 10: DRUGS USED DURING THE WEEK PRIOR TO ADMISSION TO TREATMENT--PROGRAM POPULATIONS

Drug	New York	Philadelphia	Detroit	San Francisco	Washington	Total
TOTAL	224	101	88	149	163	725
Heroin	79%	98%	96%	97%	93%	90%
Marijuana/ Hashish	39%	36%	50%	42%	51%	43%
Methadone	42%	26%	41%	34%	23%	34%
Cocaine	43%	19%	38%	32%	60%	40%
All Other	9%	45%	3%	43%	42%	28%

Note: Percentages do not total to 100 due to multiple answers.

TABLE 11: PRIMARY DRUG OF ABUSE--PROGRAM POPULATIONS

Drug	New York	Philadelphia	Detroit	San Francisco	Washington	Total
TOTAL	224	101	88	149	163	725
Heroin	80%	93%	91%	99%	90%	89%
Marijuana/ Hashish	*	--	--	--	--	*
Methadone	13%	2%	5%	--	2%	5%
Cocaine	3%	--	--	--	1%	1%
All Other	3%	5%	--	1%	7%	3%
No Data	*	--	5%	--	--	1%

*Less than .5 percent.

Note: Percentages do not total to 100 due to rounding.

TABLE 12: REASONS FOR USING ILLICIT METHADONE--PROGRAM POPULATIONS

Reasons for Use	New York	Philadelphia	Detroit	San Francisco	Washington	Total
Total	172	75	70	108	85	510
to avoid withdrawal	58%	57%	50%	86%	68%	64%
to get high	40%	24%	24%	51%	25%	35%
to limit habit	17%	15%	31%	69%	22%	30%
temporary detox.	27%	5%	24%	83%	14%	33%
heroin substitute	33%	5%	14%	77%	35%	36%
permanent detox.	20%	27%	9%	69%	4%	27%
"waiting list"	45%	20%	29%	76%	27%	43%
methadone addiction	29%	7%	11%	48%	13%	25%

Note: Percentages do not total to 100 due to multiple answers.

TABLE 13: SOURCES OF ILLICIT METHADONE--PATIENT POPULATIONS

Source	New York	Philadelphia	Detroit	San Francisco	Washington	Total
TOTAL	224	101	88	149	163	725
Patients	93%	85%	65%	87%	65%	81%
Special Dealers	13%	9%	17%	15%	23%	16%
Pushers	24%	17%	33%	37%	32%	28%
Doctors	10%	13%	8%	9%	24%	13%
Staff	6%	7%	1%	9%	27%	11%

Note: Percentages do not total to 100 due to multiple answers.

TABLE 14: CODAP ADMISSIONS FOR ALL SMSA'S BY ILLEGAL METHADONE AS PROBLEM DRUG, 1975

	Total Admissions	Methadone as Problem Drug				
		Primary	Secondary	Tertiary	Total	
1/75	8,839	97	249	53	399	4.5%
2/75	7,671	78	187	50	315	4.1%
3/75	8,279	100	230	39	369	4.5%
4/75	8,546	73	180	54	307	3.6%
5/75	8,482	82	155	39	276	3.3%
6/75	8,218	85	174	51	310	3.8%
7/75	8,421	82	217	58	357	4.2%
8/75	8,356	74	183	59	316	3.8%
9/75	8,902	73	179	72	324	3.6%
10/75	10,211	87	193	96	376	3.7%
11/75	7,988	80	158	57	295	3.7%
12/75	6,849	53	136	38	227	3.3%
Total	100,762	964	2,241	666	3,871	3.8%

TABLE 15: CODAP ADMISSIONS BY ILLEGAL METHADONE AND SMSA, 1975

SMSA	TOTAL ADMISSIONS	ILLEGAL METHADONE		RANK	RATIO
New York	16,959	2,112	12.5%	1	1:8
Miami	4,287	201	4.7%	2	1:21
Boston	4,402	180	4.1%	3	1:24
Kansas City	1,246	47	3.8%	4	1:27
Detroit	9,657	326	3.4%	5	1:29
Philadelphia	11,303	343	3.0%	6	1:33
Minneapolis	1,203	33	2.7%	7	1:36
Denver	1,847	44	2.4%	8	1:42
Cleveland	2,496	60	2.4%	9	1:42
Washington, DC	2,506	60	2.4%	10	1:42
Buffalo	896	21	2.3%	11	1:43
Chicago	5,225	111	2.1%	12	1:47
New Orleans	2,558	36	1.4%	13	1:71
Seattle	1,688	23	1.4%	14	1:73
San Francisco	8,577	108	1.3%	15	1:79
Atlanta	2,712	33	1.2%	16	1:82
Los Angeles	13,309	103	.8%	17	1:129
Dallas	1,362	8	.6%	18	1:170

TABLE 15 (cont'd)

SMSA	TOTAL ADMISSIONS	ILLEGAL METHADONE		RANK	RATIO
San Antonio	1,139	6	.5%	19	1:189
Indianapolis	841	4	.5%	20	1:210
Raleigh	212	1	.5%	21	1:212
Oklahoma City	1,119	3	.3%	22	1:373
Phoenix	2,356	5	.2%	23	1:471
San Diego	2,862	3	.1%	24	1:954

TABLE 16: CODAP ADMISSIONS BY ILLEGAL METHADONE AS PROBLEM DRUG, 1975, ATLANTA SMSA

	Total Admissions	Methadone as Problem Drug				
		Primary	Secondary	Tertiary	Total	
1/75	257	2	2	--	4	1.6%
2/75	249	--	3	--	3	1.2%
3/75	271	1	1	--	2	.7%
4/75	237	1	1	1	3	1.3%
5/75	246	--	4	1	5	2.0%
6/75	205	2	--	--	2	1.0%
7/75	204	1	1	--	2	1.0%
8/75	227	2	1	1	4	1.8%
9/75	202	--	1	1	2	1.0%
10/75	233	--	1	--	1	.4%
11/75	195	1	3	--	4	2.1%
12/75	186	--	1	--	1	.5%
Total	2,712	10	19	4	33	1.2%

TABLE 17: CODAP ADMISSIONS BY ILLEGAL METHADONE AS PROBLEM DRUG, 1975, BOSTON SMSA

	Total Admissions	Methadone as Problem Drug				
		Primary	Secondary	Tertiary	Total	
1/75	424	6	5	4	15	3.5%
2/75	340	6	4	3	13	3.8%
3/75	389	5	6	4	15	3.9%
4/75	441	4	4	2	10	2.3%
5/75	384	7	4	4	15	3.9%
6/75	361	6	3	4	13	3.6%
7/75	346	6	8	2	16	4.6%
8/75	315	1	11	4	16	5.1%
9/75	393	6	7	7	20	5.1%
10/75	411	5	12	4	21	5.1%
11/75	350	3	10	5	18	5.1%
12/75	248	2	4	2	8	3.2%
Total	4,402	57	78	45	180	4.1%

TABLE 18: CODAP ADMISSIONS BY ILLEGAL METHADONE AS PROBLEM DRUG, 1975, BUFFALO SMSA

	Total Admissions	Methadone as Problem Drug				
		Primary	Secondary	Tertiary	Total	
1/75	112	--	1	--	1	.9%
2/75	63	--	--	--	--	--
3/75	84	--	--	1	1	1.2%
4/75	74	--	2	2	4	5.4%
5/75	68	2	2	--	4	5.9%
6/75	61	1	1	--	2	3.3%
7/75	76	1	2	--	3	3.9%
8/75	73	--	1	--	1	1.4%
9/75	64	--	--	--	--	--
10/75	88	--	1	--	1	1.1%
11/75	79	1	1	1	3	3.8%
12/75	54	--	--	1	1	1.9%
Total	896	5	11	5	21	2.3%

TABLE 19: CODAP ADMISSIONS BY ILLEGAL METHADONE AS PROBLEM DRUG, 1975, CHICAGO SMSA

	Total Admissions	Methadone as Problem Drug				
		Primary	Secondary	Tertiary	Total	
1/75	421	8	4	2	14	3.3%
2/75	354	2	2	1	5	1.4%
3/75	393	7	5	2	14	3.6%
4/75	380	2	7	2	11	2.9%
5/75	358	5	8	--	13	3.6%
6/75	477	1	5	--	6	1.3%
7/75	490	3	1	1	5	1.0%
8/75	491	5	5	3	13	2.6%
9/75	479	1	7	--	8	1.7%
10/75	558	1	4	1	6	1.1%
11/75	413	2	4	2	8	1.9%
12/75	411	1	6	1	8	1.9%
Total	5,225	38	58	15	111	2.1%

TABLE 20: CODAP ADMISSIONS BY ILLEGAL METHADONE AS PROBLEM DRUG, 1975, CLEVELAND SMSA

	Total Admissions	Methadone as Problem Drug				
		Primary	Secondary	Tertiary	Total	
1/75	221	5	7	--	12	5.4%
2/75	203	4	3	--	7	3.4%
3/75	195	6	3	--	9	4.6%
4/75	223	2	3	--	5	2.2%
5/75	244	1	3	--	4	1.6%
6/75	227	3	--	--	3	1.3%
7/75	205	3	1	--	4	2.0%
8/75	218	2	1	--	3	1.4%
9/75	229	3	2	2	7	3.1%
10/75	214	--	4	1	5	2.3%
11/75	155	--	--	--	--	--
12/75	162	--	1	--	1	.6%
Total	2,496	29	28	3	60	2.4%

TABLE 21: CODAP ADMISSIONS BY ILLEGAL METHADONE AS PROBLEM DRUG, 1975, DALLAS SMSA

	Total Admissions	Methadone as Problem Drug				
		Primary	Secondary	Tertiary	Total	
1/75	93	--	2	--	2	2.2%
2/75	98	--	--	--	--	--
3/75	112	--	2	--	2	1.8%
4/75	124	--	1	--	1	.8%
5/75	110	--	--	--	--	--
6/75	123	--	--	--	--	--
7/75	120	--	--	--	--	--
8/75	105	--	--	--	--	--
9/75	151	--	--	--	--	--
10/75	102	--	--	1	1	1.0%
11/75	86	--	--	--	--	--
12/75	138	--	2	--	2	1.4%
Total	1,362	--	7	1	8	.6%

TABLE 22: CODAP ADMISSIONS BY ILLEGAL METHADONE AS PROBLEM DRUG, 1975, DENVER SMSA

	Total Admissions	Methadone as Problem Drug				
		Primary	Secondary	Tertiary	Total	
1/75	186	--	10	1	11	5.9%
2/75	144	--	--	1	1	.7%
3/75	145	1	--	--	1	.7%
4/75	165	--	4	--	4	2.4%
5/75	165	1	3	1	5	3.0%
6/75	157	--	1	--	1	.6%
7/75	144	--	2	--	2	1.4%
8/75	148	2	3	1	6	4.1%
9/75	125	--	2	1	3	2.4%
10/75	186	1	4	--	5	2.7%
11/75	154	1	--	1	2	1.3%
12/75	128	--	3	--	3	2.3%
Total	1,847	6	32	6	44	2.4%

TABLE 23: CODAP ADMISSIONS BY ILLEGAL METHADONE AS PROBLEM DRUG, 1975, DETROIT SMSA

	Total Admissions	Methadone as Problem Drug				
		Primary	Secondary	Tertiary	Total	
1/75	993	4	37	8	49	4.9%
2/75	868	5	28	3	36	4.1%
3/75	881	5	30	1	36	4.1%
4/75	940	3	30	3	36	3.8%
5/75	942	1	14	1	16	1.7%
6/75	915	2	20	2	24	2.6%
7/75	737	1	20	3	24	3.3%
8/75	682	3	16	3	22	3.2%
9/75	894	1	20	3	24	2.7%
10/75	912	2	17	3	22	2.4%
11/75	631	4	12	2	18	2.9%
12/75	262	1	13	5	19	7.3%
Total	9,657	32	257	37	326	3.4%

TABLE 24: CODAP ADMISSIONS BY ILLEGAL METHADONE AS PROBLEM DRUG, 1975, INDIANAPOLIS SMSA

	Total Admissions	Methadone as Problem Drug				
		Primary	Secondary	Tertiary	Total	
1/75	60	--	--	1	1	1.7%
2/75	55	--	--	--	--	--
3/75	58	--	1	--	1	1.7%
4/75	66	--	--	--	--	--
5/75	77	--	--	--	--	--
6/75	82	--	--	--	--	--
7/75	88	1	--	--	1	1.1%
8/75	88	--	--	--	--	--
9/75	59	--	--	--	--	--
10/75	85	--	--	--	--	--
11/75	72	1	--	--	1	1.4%
12/75	51	--	--	--	--	--
Total	841	2	1	1	4	.5%

TABLE 25: CODAP ADMISSIONS BY ILLEGAL METHADONE AS PROBLEM DRUG, 1975, KANSAS CITY SMSA

	Total Admissions	Methadone as Problem Drug				
		Primary	Secondary	Tertiary	Total	
1/75	87	--	3	1	4	4.6%
2/75	107	3	3	--	6	5.6%
3/75	114	--	1	--	1	.9%
4/75	134	2	2	--	4	3.0%
5/75	103	1	1	--	2	1.9%
6/75	96	4	4	--	8	8.3%
7/75	95	--	3	1	4	4.2%
8/75	87	--	3	--	3	3.4%
9/75	120	--	2	2	4	3.3%
10/75	132	--	1	2	3	2.3%
11/75	85	--	2	2	4	4.7%
12/75	86	--	3	1	4	4.7%
Total	1,246	10	28	9	47	3.8%

TABLE 26: CODAP ADMISSIONS BY ILLEGAL METHADONE AS PROBLEM DRUG, 1975, LOS ANGELES SMSA

	Total Admissions	Methadone as Problem Drug				
		Primary	Secondary	Tertiary	Total	
1/75	1,001	1	3	2	6	.6%
2/75	851	1	3	1	5	.6%
3/75	997	--	1	2	3	.3%
4/75	1,139	2	4	2	8	.7%
5/75	1,029	1	5	1	7	.7%
6/75	1,098	--	5	6	11	1.0%
7/75	1,175	1	6	1	8	.7%
8/75	1,069	--	11	5	16	1.5%
9/75	1,089	3	5	1	9	.8%
10/75	1,452	3	8	2	13	.9%
11/75	1,241	3	4	1	8	.6%
12/75	1,168	4	5	--	9	.8%
Total	13,309	19	60	24	103	.8%

TABLE 27: CODAP ADMISSIONS BY ILLEGAL METHADONE AS PROBLEM DRUG, 1975, MIAMI SMSA

	Total Admissions	Methadone as Problem Drug				
		Primary	Secondary	Tertiary	Total	
1/75	400	9	4	2	15	3.8%
2/75	365	6	8	8	22	6.0%
3/75	353	10	5	2	17	4.8%
4/75	355	2	7	5	14	3.9%
5/75	313	6	7	3	16	5.1%
6/75	361	8	4	2	14	3.9%
7/75	454	5	8	6	19	4.2%
8/75	346	11	11	7	29	8.4%
9/75	364	9	8	4	21	5.8%
10/75	393	7	4	4	15	3.8%
11/75	277	6	2	1	9	3.2%
12/75	306	3	3	4	10	3.3%
Total	4,287	82	71	48	201	4.7%

TABLE 28: CODAP ADMISSIONS BY ILLEGAL METHADONE AS PROBLEM DRUG, 1975, MINNEAPOLIS SMSA

	Total Admissions	Methadone as Problem Drug				
		Primary	Secondary	Tertiary	Total	
1/75	82	--	2	--	2	2.4%
2/75	92	--	1	--	1	1.1%
3/75	96	--	4	--	4	4.2%
4/75	89	--	2	2	4	4.5%
5/75	116	2	2	--	4	3.4%
6/75	91	--	1	2	3	3.3%
7/75	100	--	4	--	4	4.0%
8/75	106	--	3	--	3	2.8%
9/75	97	--	--	2	2	2.1%
10/75	131	1	--	3	4	3.1%
11/75	107	--	--	1	1	.9%
12/75	96	--	--	1	1	1.0%
Total	1,203	3	19	11	33	2.7%

TABLE 29: CODAP ADMISSIONS BY ILLEGAL METHADONE AS PROBLEM DRUG, 1975, NEW ORLEANS SMSA

	Total Admissions	Methadone as Problem Drug				
		Primary	Secondary	Tertiary	Total	
1/75	227	--	3	--	3	1.3%
2/75	184	--	--	--	--	--
3/75	199	--	--	--	--	--
4/75	231	--	1	--	1	.4%
5/75	247	--	--	--	--	--
6/75	220	3	--	--	3	1.4%
7/75	219	1	2	1	4	1.8%
8/75	231	--	2	2	4	1.7%
9/75	255	--	2	--	2	.8%
10/75	216	--	--	1	1	.5%
11/75	175	--	8	1	9	5.1%
12/75	154	1	8	--	9	5.8%
Total	2,558	5	26	5	36	1.4%

TABLE 30: CODAP ADMISSIONS BY ILLEGAL METHADONE AS PROBLEM DRUG, 1975, NEW YORK SMSA

	Total Admissions	Methadone as Problem Drug				
		Primary	Secondary	Tertiary	Total	
1/75	1,519	41	119	26	186	12.2%
2/75	1,363	41	102	26	169	12.4%
3/75	1,539	48	138	19	205	13.3%
4/75	1,492	40	88	32	160	10.7%
5/75	1,683	40	76	24	140	8.3%
6/75	1,404	40	103	30	173	12.3%
7/75	1,632	50	137	38	225	13.8%
8/75	1,403	33	94	31	158	11.3%
9/75	1,479	40	91	43	174	11.8%
10/75	1,550	44	112	66	222	14.3%
11/75	1,158	53	97	35	185	16.0%
12/75	737	31	64	20	115	15.6%
Total	16,959	501	1,221	390	2,112	12.5%

TABLE 31: CODAP ADMISSIONS BY ILLEGAL METHADONE AS PROBLEM DRUG, 1975, OKLAHOMA CITY SMSA

	Total Admissions	Methadone as Problem Drug				
		Primary	Secondary	Tertiary	Total	
1/75	101	1	--	--	1	1.0%
2/75	75	--	--	--	--	--
3/75	73	--	--	--	--	--
4/75	106	--	--	--	--	--
5/75	86	--	--	--	--	--
6/75	76	--	--	--	--	--
7/75	124	--	--	--	--	--
8/75	125	--	--	--	--	--
9/75	92	--	--	--	--	--
10/75	109	--	2	--	2	1.8%
11/75	68	--	--	--	--	--
12/75	84	--	--	--	--	--
Total	1,119	1	2	--	3	.3%

TABLE 32: CODAP ADMISSIONS BY ILLEGAL METHADONE AS PROBLEM DRUG, 1975, PHILADELPHIA SMSA

	Total Admissions	Methadone as Problem Drug				
		Primary	Secondary	Tertiary	Total	
1/75	1,027	12	25	3	40	3.9%
2/75	907	10	17	4	31	3.4%
3/75	914	14	15	4	33	3.6%
4/75	875	13	12	3	28	3.2%
5/75	884	12	14	2	28	3.2%
6/75	759	8	16	3	27	3.6%
7/75	558	5	11	3	19	3.4%
8/75	982	10	11	2	23	2.3%
9/75	1,073	7	15	4	26	2.4%
10/75	1,372	17	17	6	40	2.9%
11/75	924	5	9	4	18	1.9%
12/75	1,028	8	19	3	30	2.9%
Total	11,303	121	181	41	343	3.0%

TABLE 33: CODAP ADMISSIONS BY ILLEGAL METHADONE AS PROBLEM DRUG, 1975, PHOENIX SMSA

	Total Admissions	Methadone as Problem Drug Primary	Secondary	Tertiary	Total	
1/75	246	--	1	--	1	.4%
2/75	191	--	--	--	--	--
3/75	200	1	--	--	1	.5%
4/75	215	--	--	--	--	--
5/75	172	--	--	--	--	--
6/75	183	--	--	--	--	--
7/75	188	--	--	--	--	--
8/75	156	--	--	--	--	--
9/75	168	1	1	--	2	1.2%
10/75	214	--	--	--	--	--
11/75	190	--	--	--	--	--
12/75	233	1	--	--	1	.4%
Total	2,356	3	2	--	5	.2%

TABLE 34: CODAP ADMISSIONS BY ILLEGAL METHADONE AS PROBLEM DRUG, 1975, RALEIGH SMSA

	Total Admissions	Methadone as Problem Drug				
		Primary	Secondary	Tertiary	Total	
1/75	8	--	--	--	--	--
2/75	24	--	--	--	--	--
3/75	28	--	1	--	1	3.6%
4/75	19	--	--	--	--	--
5/75	34	--	--	--	--	--
6/75	10	--	--	--	--	--
7/75	11	--	--	--	--	--
8/75	22	--	--	--	--	--
9/75	5	--	--	--	--	--
10/75	16	--	--	--	--	--
11/75	25	--	--	--	--	--
12/75	10	--	--	--	--	--
Total	212	--	1	--	1	.5%

TABLE 35: CODAP ADMISSIONS BY ILLEGAL METHADONE AS PROBLEM DRUG, 1975, SAN ANTONIO SMSA

	Total Admissions	Methadone as Problem Drug				
		Primary	Secondary	Tertiary	Total	
1/75	111	--	--	--	--	--
2/75	98	--	--	--	--	--
3/75	117	--	1	--	1	.9%
4/75	114	--	1	--	1	.9%
5/75	84	--	--	--	--	--
6/75	89	--	--	--	--	--
7/75	89	--	1	--	1	1.1%
8/75	77	--	1	--	1	1.3%
9/75	74	--	2	--	2	2.7%
10/75	101	--	--	--	--	--
11/75	113	--	--	--	--	--
12/75	72	--	--	--	--	--
Total	1,139	--	6	--	6	.5%

TABLE 36: CODAP ADMISSIONS BY ILLEGAL METHADONE AS PROBLEM DRUG, 1975, SAN DIEGO SMSA

	Total Admissions	Methadone as Problem Drug				
		Primary	Secondary	Tertiary	Total	
1/75	163	--	--	--	--	--
2/75	108	--	--	--	--	--
3/75	131	--	--	--	--	--
4/75	96	--	--	--	--	--
5/75	112	--	--	1	1	.9%
6/75	191	--	--	--	--	--
7/75	329	--	--	--	--	--
8/75	358	--	--	--	--	--
9/75	325	--	--	--	--	--
10/75	374	--	--	1	1	.3%
11/75	357	--	--	--	--	--
12/75	318	--	1	--	1	.3%
Total	2,862	--	1	2	3	.1%

TABLE 37: CODAP ADMISSIONS BY ILLEGAL METHADONE AS PROBLEM DRUG, 1975, SAN FRANCISCO SMSA

	Total Admissions	Methadone as Problem Drug				
		Primary	Secondary	Tertiary	Total	
1/75	763	3	11	--	14	1.8%
2/75	708	--	5	--	5	.7%
3/75	669	2	12	1	15	2.2%
4/75	690	1	3	--	4	.6%
5/75	665	1	7	--	8	1.2%
6/75	677	6	8	2	16	2.4%
7/75	666	3	7	1	11	1.7%
8/75	664	3	5	--	8	1.2%
9/75	784	1	8	1	10	1.3%
10/75	958	4	6	1	11	1.1%
11/75	801	--	5	--	5	.6%
12/75	532	--	1	--	1	.2%
Total	8,577	24	78	6	108	1.3%

TABLE 38: CODAP ADMISSIONS BY ILLEGAL METHADONE AS PROBLEM DRUG, 1975, SEATTLE SMSA

	Total Admissions	Methadone as Problem Drug				
		Primary	Secondary	Tertiary	Total	
1/75	110	1	4	--	5	4.5%
2/75	73	--	2	--	2	2.7%
3/75	136	--	1	--	1	.7%
4/75	159	--	2	--	2	1.3%
5/75	165	--	2	--	2	1.2%
6/75	164	1	1	--	2	1.2%
7/75	162	--	1	--	1	.6%
8/75	168	--	1	--	1	.6%
9/75	153	--	3	--	3	2.0%
10/75	142	--	--	--	--	--
11/75	140	--	1	1	2	1.4%
12/75	116	1	1	--	2	1.7%
Total	1,688	3	19	1	23	1.4%

TABLE 39: CODAP ADMISSIONS BY ILLEGAL METHADONE AS PROBLEM DRUG, 1975, WASHINGTON, D.C. SMSA

	Total Admissions	Methadone as Problem Drug				
		Primary	Secondary	Tertiary	Total	
1/75	227	4	6	3	13	5.7%
2/75	151	--	6	3	9	6.0%
3/75	185	--	3	3	6	3.2%
4/75	182	1	6	--	7	3.8%
5/75	195	2	3	1	6	3.1%
6/75	191	--	2	--	2	1.0%
7/75	209	1	2	1	4	1.9%
8/75	215	2	3	--	5	2.3%
9/75	228	1	3	1	5	2.2%
10/75	262	2	--	--	2	.8%
11/75	192	--	--	--	--	--
12/75	269	--	1	--	1	.4%
Total	2,506	13	35	12	60	2.4%

TABLE 40: TOTAL DRUG AND METHADONE MENTIONS BY SMSA, DAWN - 1975

SMSA	TOTAL DRUG MENTIONS	METHADONE		SOURCE					
		N	%	LEGAL		ILLEGAL		NO DATA	
Atlanta	4125	19	.5	15	78.9	--	--	4	21.1
Boston	9345	213	2.3	77	36.2	41	19.2	95	44.6
Buffalo	4475	9	.2	5	55.6	2	22.2	2	22.2
Chicago	11056	137	1.2	102	74.5	9	6.6	26	19.0
Cleveland	5601	109	1.9	57	52.3	35	32.1	17	15.6
Dallas	3410	2	.1	--	--	--	--	2	100.0
Denver	6030	21	.3	9	42.9	5	23.9	7	33.3
Detroit	21997	366	1.7	193	52.7	48	13.1	125	34.1
Indianapolis	2667	39	1.5	30	76.9	4	10.3	5	12.8
Los Angeles	34746	128	.4	34	26.6	45	35.2	49	38.3
Miami	16446	227	1.4	197	86.8	13	5.7	17	7.5
Minneapolis	8407	27	.3	4	14.8	3	11.1	20	74.1
New Orleans	2631	32	1.2	11	34.4	9	28.1	12	37.5
New York	13718	1955	14.3	687	35.1	213	10.9	1055	53.9
Oklahoma City	2854	4	.1	--	--	3	75.0	1	25.0
Philadelphia	13146	168	1.3	65	38.7	14	8.3	89	53.0
Phoenix	9431	46	.5	35	76.1	5	10.9	6	13.0
Raleigh	811	2	.2	2	100.0	--	--	--	--
San Antonio	2039	2	.1	2	100.0	--	--	--	--
San Francisco	15319	66	.4	32	48.5	5	7.6	29	44.0
Seattle	5383	22	.4	16	72.7	1	4.5	5	22.7
Washington, D.C.	13252	86	.6	31	36.0	35	40.7	20	23.3

TABLE 41: ACCIDENTAL DEATHS INVOLVING METHADONE, DADE COUNTY (MIAMI), FLORIDA, JANUARY 1, 1956-DECEMBER 31, 1975

YEAR	AGE	SEX	ETHNICITY	OTHER DRUGS
1969	27	M	white	--
1969	27	M	white	--
1969	18	M	white	--
1970	22	M	white	--
1970	34	F	white	--
1970	24	M	white	--
1971	19	M	white	--
1971	14	F	black	heroin
1971	31	M	white	--
1971	21	M	white	--
1971	35	M	black	--
1971	23	M	white	Seconal
1971	23	M	black	heroin
1971	34	F	white	--
1972	18	M	black	--
1972	30	M	white	--
1972	20	M	white	--
1972	23	M	white	cocaine
1972	18	M	white	Quaalude
1972	17	M	white	Quaalude
1973	23	M	white	Placidyl
1973	18	M	black	--
1973	19	M	white	Quaalude
1973	23	M	white	Quaalude
1973	21	M	white	Quaalude, Tuinal
1973	19	M	white	--
1974	27	M	white	--
1974	23	M	white	phenobarbital
1974	25	F	black	heroin
1974	28	M	white	heroin
1974	26	F	black	--
1975	20	F	white	--
1975	27	M	white	--
1975	25	F	white	heroin

TABLE 42: ILLEGAL METHADONE-RELATED ADMISSIONS, CODAP SMSA'S, BY QUARTER, 4/73-3/76

	4/73-6/73	7/73-9/73	10/73-12/73	Total
Atlanta	15	3	23	41
Boston	--	2	21	23
Buffalo	--	10	15	25
Chicago	13	28	26	67
Cleveland	10	23	10	43
Dallas	--	14	7	21
Denver	15	2	30	47
Detroit	101	110	192	403
Indianapolis	--	--	1	1
Kansas City	4	8	3	15
Los Angeles	39	29	45	113
Miami	25	8	11	44
Minneapolis	16	4	14	34
New Orleans	3	6	7	16
New York	90	289	378	757
Oklahoma City	1	1	3	5
Philadelphia	197	163	124	484
Phoenix	21	20	10	51
Raleigh	--	--	1	1
San Antonio	3	10	6	19
San Diego	13	--	--	13
San Francisco	26	18	30	74
Seattle	20	10	9	39
Washington, D.C.	35	26	40	101
Total	647	784	1006	2437

TABLE 42 (cont'd)

	1/74-3/74	4/74-6/74	7/74-9/74	10/74-12/74	Total
Atlanta	2	16	13	14	45
Boston	8	19	8	22	57
Buffalo	18	15	7	--	40
Chicago	23	34	34	8	99
Cleveland	14	21	16	11	62
Dallas	5	9	5	5	24
Denver	19	15	25	5	64
Detroit	155	219	301	144	819
Indianapolis	7	9	--	1	17
Kansas City	3	13	5	5	26
Los Angeles	30	26	52	18	126
Miami	15	19	14	25	73
Minneapolis	1	10	30	16	57
New Orleans	6	11	8	7	32
New York	526	514	329	384	1753
Oklahoma City	--	1	2	1	4
Philadelphia	117	43	72	90	322
Phoenix	8	9	2	7	26
Raleigh	--	--	1	--	1
San Antonio	6	14	10	3	33
San Diego	--	2	--	--	2
San Francisco	26	36	37	21	120
Seattle	10	10	10	4	34
Washington, D.C.	22	34	53	23	132
Total	1021	1099	1034	814	3968

TABLE 42 (cont'd)

	1/75-3/75	4/75-6/75	7/75-9/75	10/75-12/75	Total	1/76-3/76
Atlanta	9	10	8	6	33	1
Boston	43	38	52	47	180	34
Buffalo	2	10	4	5	21	4
Chicago	33	30	26	22	111	36
Cleveland	28	12	14	6	60	5
Dallas	4	1	--	3	8	3
Denver	13	10	11	10	44	8
Detroit	121	76	70	59	326	91
Indianapolis	2	--	1	1	4	1
Kansas City	11	14	11	11	47	5
Los Angeles	14	26	33	30	103	61
Miami	54	44	69	34	201	40
Minneapolis	7	11	9	6	33	8
New Orleans	3	4	10	19	36	35
New York	560	473	557	522	2112	591
Oklahoma City	1	--	--	2	3	1
Philadelphia	104	83	68	88	343	126
Phoenix	2	--	2	1	5	2
Raleigh	1	--	--	--	1	--
San Antonio	1	1	4	--	6	3
San Diego	--	1	--	2	3	2
San Francisco	34	28	29	17	108	23
Seattle	8	6	5	4	23	7
Washington, DC	28	15	14	3	60	7
Total	1083	893	997	898	3871	1094

TABLE 43: ILLEGAL METHADONE USERS, DADE COUNTY COMPREHENSIVE DRUG PROGRAM

TOTAL	59	100%
Sex:		
males	44	75%
females	15	25%
Age:		
24 years or less	--	--
25-34 years	2	3%
35-49 years	26	44%
50 years and over	31	53%
Ethnicity:		
white	30	51%
black	5	9%
Latin	21	36%
No Data	3	5%

Note: Percentages do not total to 100 due to rounding.

TABLE 44: ILLEGAL METHADONE USERS, DADE COUNTY TASC PROGRAM

Characteristic	Ever Used		Current Use	
TOTAL	198	100%	46	100%
Sex:				
males	139	70%	38	83%
females	59	30%	8	17%
Age:				
under 17 years	3	2%	1	2%
18-24 years	130	66%	28	61%
25-34 years	56	28%	15	33%
35-49 years	9	5%	2	4%
Ethnicity:				
white	108	55%	27	59%
black	86	43%	18	39%
Latin	3	2%	1	2%
other	1	1%	--	--

Note: Percentages do not total to 100 due to rounding.

TABLE 45: ACUTE DRUG REACTIONS INVOLVING METHADONE, JACKSON MEMORIAL HOSPITAL, MIAMI, FLORIDA, 1972-1975

Characteristic	1972	1973	1974	1975
TOTAL	25	70	59	72
Sex:				
male	68%	53%	63%	57%
female	32%	47%	37%	43%
Age:				
18-24 years	60%	56%	42%	33%
25-34 years	32%	36%	53%	54%
35-49 years	4%	9%	2%	11%
50 years and over	4%	--	3%	1%
Ethnicity:				
white	68%	70%	64%	63%
black	24%	26%	27%	36%
Latin	8%	4%	9%	1%
Complaint:				
addiction	20%	51%	61%	58%
overdose	72%	9%	25%	15%
suicide	--	9%	2%	1%
panic reaction	--	9%	2%	1%
other medical	8%	16%	3%	10%
all other	--	7%	7%	14%
Other Drugs Present:				
Yes	16%	26%	29%	38%
No	84%	74%	71%	63%

Note: Percentages do not total to 100 due to rounding.

Source: National Center for the Study of Acute Drug Reactions.

TABLE 46: FIVE CITY SUMMARY OF TRACE RESULTS: 1972-73

CITY	AGENCY	DATE STARTED	NUMBER LIQUID SEIZURES	POSITIVE RESULTS
Miami	M.E.O.	7/20/72	0	0
	DEA	7/20/72	0	0
New York	NYCPD	5/24/73	12	0
	DEA	5/24/73	0	0
Philadelphia	Phila PD	1/19/73	14	0
	DEA	1/19/73	0	0
St. Louis	St. Louis P.D.	4/6/73	1	1
	DEA	3/30/73	1	0
San Juan	PRPD	4/17/73	1	0

Note: Trace procedures were concluded in all cities on August 31, 1973.

TABLE 47: NUMBER OF METHADONE MAINTENANCE UNITS AND CLIENTS BY SMSA, MARCH 1976, NATIONAL DRUG ABUSE TREATMENT UTILIZATION SURVEY

SMSA	Units		Clients	
TOTAL	304	100%	55,084	100%
Albuquerque	5	2%	440	1%
Atlanta	6	2%	312	1%
Boston	8	3%	779	1%
Buffalo	2	1%	246	<1%
Chicago	26	9%	3,315	6%
Cleveland	10	3%	1,190	2%
Dallas/Ft. Worth	4	1%	219	<1%
Denver	4	1%	447	1%
Detroit	36	12%	4,941	9%
Houston	5	2%	796	1%
Indianapolis	4	1%	232	<1%
Kansas City	3	1%	221	<1%
Los Angeles	18	6%	2,568	5%
Miami	5	2%	683	1%
Minneapolis	5	2%	495	1%
New Orleans	6	2%	940	2%
New York	73	24%	25,833	47%
Newark	9	3%	1,158	2%
Oklahoma City	3	1%	146	<1%
Omaha	1	<1%	79	<1%
Philadelphia	17	6%	3,146	6%
Phoenix	2	1%	341	1%
Pittsburgh	4	1%	519	1%
St. Louis	4	1%	633	1%
San Antonio	3	1%	544	1%
San Francisco	14	5%	1,819	3%
San Juan	7	2%	700	1%
Seattle	4	1%	301	1%
Toledo	1	<1%	107	<1%
Washington, D.C.	15	5%	1,934	4%

APPENDIX B:

Forms

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ADMINISTRATION
NATIONAL INSTITUTE ON DRUG ABUSE

FORM APPROVED
OMB NO. 68 R1442

CODAP ADMISSION REPORT

REPORT IDENTIFICATION — CARD 1

1. **Clinic Identifier:** [ ][ ][ ][ ][ ][ ][ ][ ] Col. 10-17

2. **Date Form Completed:** Month [ ][ ] Day [ ][ ] Year [ ][ ] Col. 18-23

ADMISSION STATUS

3. **Client Number:** [ ][ ][ ][ ][ ][ ][ ][ ][ ][ ] Col. 24-33
   25

4. **Date of Admission:** Month [ ][ ] Day [ ][ ] Year [ ][ ] Col. 34-39

5. **Admission Type** [ ] Col. 40
   1 = First Admission *(to any Clinic within Program)*
   2 = Readmission *(to any Clinic within Program)*
   3 = Transfer Admission *(from another CODAP Clinic within Program)*
   4 = Transfer Admission *(from a non-CODAP Clinic within Program)*

6. **Modality Admitted To** [ ] Col. 41
   1 = Detoxification
   2 = Maintenance
   3 = Drug Free
   9 = Other *(Specify in Remarks)*

7. **Environment Admitted To** [ ] Col. 42
   1 = Prison
   2 = Hospital
   3 = Residential
   4 = Day Care
   5 = Outpatient

8. **Medication(s) Prescribed** [ ][ ] Col. 43-44 [ ][ ] Col. 45-46
   00 = None
   01 = Methadone
   02 = LAAM
   03 = Propoxyphene-N
   04 = Naloxone
   05 = Cyclazocine
   06 = Disulfiram
   07 = Other Antagonist
   99 = Other *(Specify in Remarks)*

9. **Legal Status** [ ][ ] Col. 47-48
   01 = Voluntary
   02 = NARA I
   03 = BOP-NARA II
   04 = NARA III
   05 = BOP IPDDR
   06 = BOP Study
   07 = BOP Probationer
   08 = Other BOP
   09 = Federal TASC
   10 = VA ASMRO
   20 = State Non-Voluntary
   30 = Local Non-Voluntary

CLIENT CHARACTERISTICS

10. **Sex** 1 = Male 2 = Female [ ] Col. 49

11. **Year Of Birth** 19[ ][ ] Col. 50-51

12. **Race Or Ethnic** [ ][ ] Col. 52-53
    01 = White
    02 = Black
    03 = American Indian
    04 = Japanese
    05 = Chinese
    06 = Other Asian
    07 = Puerto Rican
    08 = Mexican American
    09 = Cuban
    99 = Other *(Specify in Remarks)*

13. **Employment Status** [ ] Col. 54
    0 = Unemployed
    1 = Part-time *(less than 30 hours per week)*
    2 = Full-time *(30 or more hours per week)*

EDUCATION STATUS

14. **Last Formal School Year Completed** (00-20) [ ][ ] Col. 55-56

15. **Currently In Education Program** 1 = Yes 2 = No [ ] Col. 57

16. **Currently In Skill Development Program** 1 = Yes 2 = No [ ] Col. 58

PRIOR TREATMENT

17. **Number Of Prior Treatment Experiences** *(in any drug treatment Program)* [ ][ ] Col. 59-60

18. **Months Since Last Treatment Experience** [ ][ ] Col. 61-62

DRUG PROBLEMS

CARD 2

	PRIMARY PROBLEM	Col.	SECOND PROBLEM	Col.	THIRD PROBLEM	Col.
19. Drug Type(s)	[ ][ ]	10-11	[ ][ ]	19-20	[ ][ ]	28-29
20. Frequency of Use At Admission		12		21		30
21. Year of First Use	19[ ][ ]	13-14	19[ ][ ]	22-23	19[ ][ ]	31-32
22. Year of First Continuing Use	19[ ][ ]	15-16	19[ ][ ]	24-25	19[ ][ ]	33-34
23. Year of Last Continuing Use	19[ ][ ]	17-18	19[ ][ ]	26-27	19[ ][ ]	35-36

24. **Has Problem With More Than 3 Drugs** 1 = Yes 2 = No [ ] Col. 37

DRUG TYPES

00 = None
01 = Heroin
02 = Illegal Methadone
03 = Other Opiates & Synthetics *(with morphine-like effects)*
04 = Alcohol Abuse
05 = Barbiturates
06 = Other Sedatives, Hypnotics or Tranquilizers
07 = Amphetamines
08 = Cocaine
09 = Marijuana/Hashish
10 = Hallucinogens
11 = Inhalants
12 = Over-the-counter
99 = Other *(Specify in Remarks)*

FREQUENCY OF USE AT ADMISSION

0 = No present use
1 = Less than once per month
2 = Less than once per week
3 = Once per week
4 = Several times per week
5 = Daily

REMARKS

25. **Coded:**
26. **Written:**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68

ADM-427-1
Rev. 9-74

The information entered on this form will be handled in the strictest confidence and will not be released to unauthorized personnel.

COMPREHENSIVE OFFENDER PROGRAM

COP CLIENT COMPREHENSIVE INFORMATION FORM

SECTION A - ALL COP CLIENTS

DATE: _____ JAIL #: _____ C.I.#: _____

PLACE OF INTERVIEW: _____ CORP#: _____ TASC #: ____

****

PHONE #: _____ DOB: _____ AGE: _____

NAME: _____
LAST FIRST MIDDLE

ALIAS: _____

ADDRESS: _____
STREET NUMBER APT. CITY STATE

VERIFIED SIGNATURE: _____

PREVIOUS ADDRESS: _____ _____
NO. MONTHS IN DADE COUNTY

SEX/HOH __ 1. Male/HOH 2. Female/HOH 3. Male not/HOH 4. Female not/HOH

RACE: ___ 1. Black 2. White 3. Spanish 4. Other ETHNIC: _____

RELIGION: _____ CITIZENSHIP _____ HEIGHT _____

WEIGHT: _____ COMPLEXION: _____ CIRCLE: MARKS, SCARS, TATOOS, TRACK-WHERE _____

****

MARITAL STATUS: ___ 1. Single 2. Married 3. Divorced 4. Never Married 5. Separated

NUMBER OF CHILDREN: ____ AGES OF CHILDREN _____

WHO DOES, OR CAN, TAKE CARE OF YOUR CHILDREN IF YOU ARE UNABLE:

_____
RELATIONSHIP

NAME: _____ ADDRESS: _____

PHONE #: _____

LIVING ARRANGEMENTS: _____ 1. Alone 2. With spouse and children
3. Children only 4. Parents
5. Other relative(s)
6. Other: _____

TERMS OF OCCUPANCY: ___ 1. Own (buying) 2. Rent
3. Rent-free 4. Half-way house
5. Other

EMPLOYMENT: ___ 1. Unemployed 2. Underemployed
3. Working P/T 4. Working F/T
5. Temp. work 6. Unable to work
7. Other: _____

WHERE EMPLOYED: _____ PHONE #: _____

VERIFIED BY: _____ OCCUPATION: _____

HOW LONG: ___ WK. NET SALARY: ___ TOT. MO. INCOME: ___

PUBLIC ASSISTANCE: _____ _____ _____
AGENCY TYPE & AMT DURATION

VETERAN/BRANCH: _____ TYPE OF DISCHARGE: _____

HIGHEST GRADE COMPLETED: ___ WHEN: _____ DEGREES: _____

****

IF CHARGES PENDING: _____ DATE: _____ TIME: _____
JUDGE

STAGE OF PROSECUTION: _____ CHARGES: _____

_____

PROBATION/PAROLE: _____ NAME OF P.O.: _____

PHONE #: _____

REFERRAL STATUS: _____ _____
TASC DORP

SECTION B: TASC REFERRALS ONLY (DRUG INVOLVED)

OTHER LOCAL RELATIVES: _____
NAME ADDRESS PHONE

EMERGENCY CONTACT: _____
NAME ADDRESS PHONE

_____

PREVIOUS DRUG PROGRAMS:

PROGRAM: _____ MODALITY: ___ YR: ___ TASC: ___ MOS: ____

PRESENT DRUG ABUSE: (LAST THREE MONTHS)

DRUG: _____ EXTENT: _____ DRUG: _____ EXTENT: _____

LAST 48 HOURS:

DRUG: _____ EXTENT: _____ DRUG: _____ EXTENT: _____

FIRST YEAR/OPIATE _____ POLY _____

PREVIOUS ARREST HISTORY: TOTAL NUMBER FELONY ARRESTS: ___

1. CHARGE: _____ DATE: _____ DISPOSITION: _____

2. CHARGE: _____ DATE: _____ DISPOSITION: _____

3. CHARGE. _____ DATE: _____ DISPOSITION: _____

MODALITY STIPULATION AND RECOMMENDATIONS: OP: __ RES: __
NONE: __
OTHER: ___

STIPULATOR _____ _____ _____ _____
JUDGE P.O. TASC OTHER

HOSPITAL EMERGENCY ROOM

OMB 43R0545
Expires June 30, 1976

HOSPITAL

DATE

TIME OF VISIT ☐ A.M. ☐ P.M.

(A) PATIENT INFORMATION

AGE

SEX ☐ MALE ☐ FEMALE

RACE ☐ WHITE ☐ BLACK ☐ UNKNOWN ☐ OTHER

EMPLOYMENT STATUS ☐ STUDENT (ANY) ☐ EMPLOYED ☐ UNEMPLOYED ☐ HOMEMAKER ☐ RETIRED WORKER ☐ OTHER ☐ UNKNOWN

PATIENT CURRENTLY ENROLLED IN TREATMENT/REHABILITATION PROGRAM ☐ YES ☐ NO ☐ UNKNOWN → IF YES, CHECK TYPE ☐ METHADONE DETOXIFICATION ☐ METHADONE MAINTENANCE ☐ OTHER

REASON FOR TAKING SUBSTANCE(S)	REASON FOR PRESENT CONTACT	DISPOSITION
☐ PSYCHIC EFFECTS	☐ UNEXPECTED REACTION	☐ REFERRED TO ANOTHER AGENCY
☐ DEPENDENCE	☐ OVERDOSE	☐ TREATED AND REFERRED
☐ SUICIDE ATTEMPT OR GESTURE	☐ CHRONIC EFFECTS	☐ TREATED AND RELEASED
☐ UNKNOWN	☐ UNKNOWN	☐ ADMITTED TO HOSPITAL
☐ OTHER, SPECIFY_____	☐ OTHER, SPECIFY_____	☐ LEFT AGAINST MEDICAL ADVICE
_____	_____	☐ DIED
_____	_____	☐ UNKNOWN

(B) DRUG SUBSTANCE INFORMATION

LIST EACH SUBSTANCE NAME (CHEMICAL, GENERIC, TRADE OR STREET NAME) IN ONE OF THE NUMBERED SPACES BELOW

1.	2.	3.

FOR EACH OF THE SUBSTANCES LISTED ABOVE, CHECK APPROPRIATE ANSWERS IN EACH RESPONSE FIELD BELOW.

FORM IN WHICH DRUG WAS ACQUIRED

	SUBSTANCE 1	2	3
TAB/CAP/PILL	☐	☐	☐
AEROSOL	☐	☐	☐
LIQUID	☐	☐	☐
POWDER	☐	☐	☐
PAPER	☐	☐	☐
INJECTABLE LIQUID	☐	☐	☐
CIGARETTE	☐	☐	☐
PLANT MATERIAL	☐	☐	☐
UNKNOWN	☐	☐	☐
OTHER, SPECIFY			

ROUTE OF ADMINISTRATION

	SUBSTANCE NUMBER 1	2	3
ORAL	☐	☐	☐
INJECTION (SPECIFY I.V., S.C., I.M.)	☐	☐	☐
INHALED (GAS, VOLATILE LIQUID, AEROSOL)	☐	☐	☐
SMOKED	☐	☐	☐
SNIFFED, SNORTED (e.g., COCAINE)	☐	☐	☐
UNKNOWN	☐	☐	☐
OTHER, SPECIFY_____			
_____			

SOURCE OF SUBSTANCE

	SUBSTANCE NUMBER 1	2	3
LEGAL RX	☐	☐	☐
FORGED RX	☐	☐	☐
STREET BUY	☐	☐	☐
O. T. C.	☐	☐	☐
STOLEN	☐	☐	☐
GIFT	☐	☐	☐
UNKNOWN	☐	☐	☐
OTHER, SPECIFY			

IDENTIFICATION OF SUBSTANCE (CHECK ALL THAT APPLY)

	SUBSTANCE NUMBER 1	2	3
Patient's statement of identification	☐	☐	☐
Doctor's statement of identification	☐	☐	☐
Positive clinical response to symptomatic treatment of drug	☐	☐	☐
Possession of commercial identifiable dosage form	☐	☐	☐
Statement of accompanying idividual	☐	☐	☐
Identification of substance from blood sample	☐	☐	☐
Identification of substance from urine sample	☐	☐	☐
Identification of substance from other body fluid or tissue	☐	☐	☐

CLINICAL STATUS: ☐ CONSCIOUS → ☐ COHERENT ☐ INCOHERENT ☐ UNCONSCIOUS ☐ DEAD

* U. S. GOVERNMENT PRINTING OFFICE : 1977 238-566/559